L 41188-65 EWT

ACCESSION NR: AP5004956 S/0286/65/000/002/0059/0060

AUTHORS: Plisko, A. P.; Savkins, L. I.

TITLE: A device for hermetically sealing hollow objects. Class 42, No. 167658

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 2, 1965, 59-60

TOPIC TAGS: sealing

ABSTRACT: This Author Certificate presents a device for hermetically sealing hollow objects such as tubes (see Fig. 1 on the Enclosure). The device includes a clamping apparatus with an end cap which may be drawn into the end of the object by means of a screw. To assure the hermetic sealing of an object of any diameter, the device is provided with detachable inserts, the inner surface of which conforms to the configuration of the object being sealed. The outer surface of the detachable inserts has the shape of a truncated cone. The sealing apparatus represents a clamp with a closed collar end. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 23Sep63 ENCL: 01 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 1/2

PLISKO, G. [Pluska, H.], vrach

Combined cardiac insufficiency. Nauka i zhyttia 10 no.6: 35-36 Je '60 (MIRA 13:7)
(HEART FAILURE)

PLISKO, J.D.

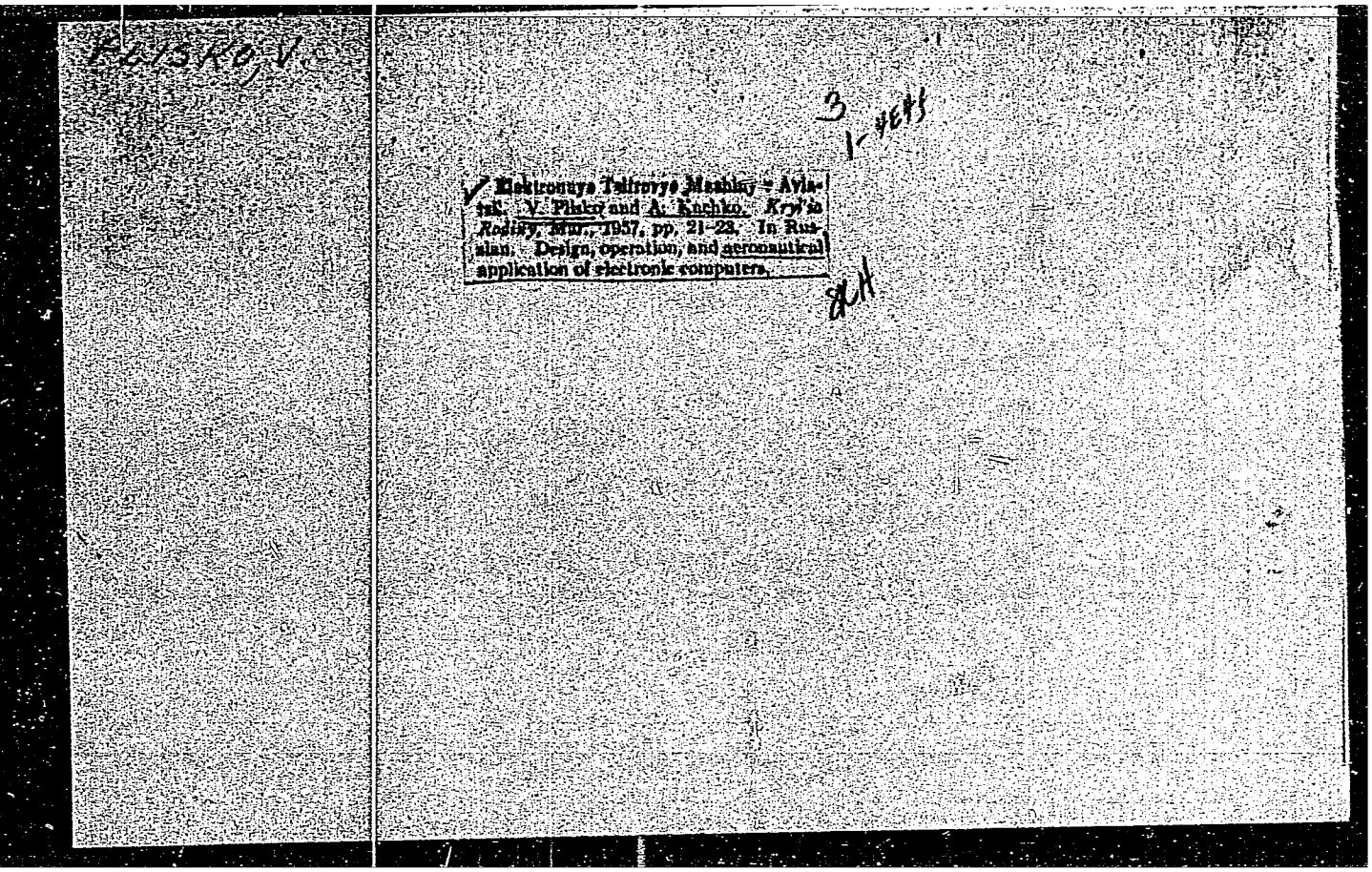
Dendrobaena auriculata (Rosa, 1897) a new species of earthworms (Oligochaeta, Lumbricidae) for Poland's fauna. Bul Ac Pol biol 10 no.2:61-63 '62.

1. Zoologisches Institut, Polnische Akademie der Wissenschaften, Warszawa. Presented by T.Jaczewski.

ANDREYEVSKAYA, G.D., kand. tekhn. nauk; PLISKO, T.A., inzh.

Some physical properties of continuous basalt fibers. Stek. i ker. 20 no.8:15-18 Ag '63. (MIRA 16:11)

1. Institut khimicheskoy fiziki AN SSSR.



Elektronnye Tekhnicheskie Mashiny v Aviatsii. V. Pliskov and A. Kuchko. *Krylya Rodiny*, Mar., 1957, pp. 21-23. In Russian. Design, operation, and aeronautical application of electronic computers.

PLISKO, J.D.

A new location of finding a new species of Dendrobaena platyura (Fitz.) var. montana (Cernosv.) (Oligochaeta, Lumbricidae).
Bul Ac Pol biol 10 no.6:229-231 '62.

1. Zoologisches Institut, Polnische Akademie der Wissenschaften, Warsawa. Presented by T.Jaczewski.

PLISKO, J. B.

Vejdovsky, 1876, a younger synonym of the name Lumbricus lucens Waga, 1857 (Oligochaeta, Lumbricidae). Bul Ac Pol biol 9 no.2:101-104 '61. (EEAI 10:9/10)

1. Instytut Zoologiczny, PAN Presented by T. Jaczewski.

(OLIGOCHAETA) (EARTHWORMS)

PLISKO, V., inzh.

Organizing routine check and repair operations by units and sections in a passenger transportation unit. Avt. transp. 43 no.9:21-23 S '65. (MIRA 18:9)

PLISKO, V.; KACHKO, A.

Electronic calculating machines in aviation. Kryl.rod. 8 no.3:21-23 Mr '57. (MLRA 10:5)
(Electronic calculating machines)

L 16834-66 EWT(d)/EWP(1) IJP(c) BB/GG
ACC NR: AM6005159 Monograph UR/

58
B+1

Plisko, V. A.

Elements of digital computers (Elementy tsifrovykh mashin) Moscow, Voyenizdat M-va oborony SSSR, 65. 0159 p. illus., biblio., 11,500 copies printed.

TOPIC TAGS: electronic computer, digital computer, computer component, electron tube, semiconductor device, ferrite core memory

PURPOSE AND COVERAGE: The book discusses the principles of operation and the selection of parameters for electron tube elements, semiconductor devices and ferrites, used in electronic digital computers. The book describes special aspects in the operation of basic computer blocks and the characteristics of parameters of the elements used. Basic attention is given to examples for the calculation of electronic digital computer elements on the basis of given characteristics. The book is intended for technical personnel engaged in the operation and maintenance of electronic digital computers, as well as for readers interested in the application of principles of radio electronics in computer technology.

TABLE OF CONTENTS (abridged):

Card 1/2

PLISKO, V.A.; PLATONOV, S.A., polkovnik, red.

[Elements of digital computers] Elementy tsifrovykh mashin. Moskva, Voenizdat, 1965. 159 p. (MIRA 18:9)

PLISKO, Valeriy Antonovich; PLATONOV, S.A., polkovnik, red.; STREL'NIKOVA, M.A., tekhn.red.

[Electronic equipment in military science] Elektronnye mashiny v voennom dele. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 74 p. (MIRA 13:5)

(Electronics in military engineering)

CHUGAYEV, Yuriy Gennadiyevich; PLISKO, Valeriy Antonovich; BAVAROV, V.A.; BOL'SHOV, V.M.; GRACHEV, S.N.; PASHKOV, A.A.; KACHKO, A.I.; PLATONOV, S.A., polkovnik, red.; MEDNIKOVA, A.N., tekhn. red.

[Electronic digital computers]Elektronnye tsifrovye vychislitel'nye mashiny. Moskva, Voenizdat, 1962. 405 p. (MIRA 16:1)
(Electronic digital computers)

PLISKO, V. A. PHASE I BOOK EXPLOITATION SOV/6293

Chugayev, Yuriy Gennadiyevich, and Valeriy Antonovich Plisko

Elektronnyye tsifrovyye vychislitel'nyye mashiny (Electronic Computers). Moscow, Voyenizdat M-va obor. SSSR, 1962. 405 p. 17,500 copies printed.

Resp. Ed.: Yu. G. Chugayev; Ed.: S. A. Platonov, Colonel; Tech. Ed.: A. N. Mednikova.

PURPOSE: This book is intended for military personnel graduated from special military schools and concerned with the operation of electronic digital computers, as well as for technicians and persons desiring to learn the construction and operation of these machines.

COVERAGE: The book describes the design and principles of operation of electronic computers, based on element, unit, and device circuits now in use, but without giving a detailed description of specific machines. As the book is supposed to assist military specialists in their daily

Card 1/ 17

activities, it does not deal with problems connected with the utilization of new elements or the further development of electronic computers and their use in the military field and other areas of the national economy. The Introduction and Ch. I were written by Yu. G. Chugayev, Chs. II, IV, IX and XI by V. A. Plisko, Ch. III by S. F. Bavarov, Ch. V by A. I. Kachko, Ch. VI by A. A. Pashkov, Chs. VII, VIII and X by V. M. Bol'shov, and Ch. XII by S. N. Grachev. There are 14 references, all Soviet, including 1 translation from English.

TABLE OF CONTENTS:

CHUGAYEV, Yuriy Gennadiyevich; PLISKO, Valeriy Antonovich; BAVAROV, S.F.; BOL'SHOV, V.M.; GRACHEV, S.N.; PASHKOV, A.A.; KACHKO, A.I.; PLATONOV, S.A., polkovnik, red.; MEDNIKOVA, A.N., tekhn. red.

[Electronic digital computers]Elektronnye tsifrovye vychislitel'nye mashiny. Moskva, Voenizdat, 1962. 405 p. (MIRA 16:2)
(Electronic digital computers).

PHASE I BOOK EXPLOITATION SOV/4304

Plisko, Valeriy Antonovich

Elektronnyye mashiny v voyennom dele (The Use of Electronic Computers for Military Purposes) Moscow, Voyenizdat, 1960. 74 p. No. of copies printed not given.

Ed.: S. A. Platonov, Colonel; Tech. Ed.: M. A. Strel'nikova.

PURPOSE: This booklet is intended for those who are interested in the study of computers and their military uses. Attention is given to the use of computers in armament systems and for training purposes. It may also be useful to the general reader who wishes to acquaint himself with the principles of electronic computers.

COVERAGE: The author describes the purpose of computers, classifies them according to types, and considers them in relation to their capabilities in solving military operational-tactical problems. Several examples of the military use of computers are given. No personalities are mentioned. There are 10 references: 7 Soviet and 3 translations from the

Card 1/3

English.

TABLE OF CONTENTS:

SOV/80-[illegible]-1-1/1

AUTHORS: Anikeyeva, A. and Plisko, Ye.

TITLE: Stepan Nikolayevich Danilov (Stepan Nikolayevich Danilov) His 70th Birthday (K 70-letiyu so dnya rozhdeniya)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Nr 1, pp 3-5 (USSR)

ABSTRACT: This is a short biography of Stepan Nikolayevich Danilov, Director of the Institute for High-Molecular Compounds of the AS USSR. He was born on 6 January 1888 in Vitebsk and was graduated from the Petersburg University in 1914. In 1930 he was selected as Professor and Head of the Chair for Chemical Processing of Cellulose at the Leningrad Technological Institute imeni Lensovet, and since then he has occupied this position till to-day. At present he is President of the Leningrad branch of the Chemical Society imeni D.I. Mendeleyev and Corresponding Member of the AS USSR. He was awarded with 2 orders of Lenin, one order of Labor Red Banner, an order of "Sign of Honor" and with medals. There is 1 photo.

Card 1/1

PLISKO, Ye.A.; DANILOV, S.N.

Water-soluble sulfomethyl and sulfoethyl cellulose ethers.
Zhur. prikl. khim. 36 no.9:2060-2064 D '63. (MIRA 17:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

PLISKO, YE. A.

Inorganic Chemistry

Dissertation: "The Swelling of Quinine in Electrolytes and Synthesis of Its Ethers." Cand Chem Sci, Inst of High Molecular Compounds, Department of Chemical Sciences, Acad Sci USSR, Oct-Dec 1953. (Vestnik Akademii Nauk, Mar 54)

SO: SUM 213, 20 Sept 1954

PLISKO, YE.A.

USSR/Chemistry - Polysaccharides

Card 1/1 Pub. 151 - 11/37

Authors : Danilov, S. N., and Plisko, E. A.

Title : Study of chitin. Part 1.- Effect of acids and alkalis on chitin

Periodical : Zhur. ob. khim. 24/10, 1761-1769, Oct 1954

Abstract : The effect of alkalis (sodium or potassium hydroxide) at increased temperatures (up to 180°), and the effect of phosphoric acid on chitin were investigated. During repeated freezing and consequent defrosting of chitin partial hydrolysis of the acetyl group takes place at -40° and maximum hydrolysis was observed during the swelling and solution of the chitin. Complete solution of chitin was observed only at high phosphoric acid concentrations. The effect of high H_3PO_4 concentration on the solubility of chitin, is explained. Nineteen references: 12-German; 4-USSR; 2-USA and 1-Swiss (1880-1951). Tables; graphs.

Institution : Academy of Sciences USSR, Institute of High-Molecular Compounds

Submitted : February 23, 1954

Plisko, E. A.

√Chitin. II. Glyceryl ethers of chitin. S. N. Danilov and E. A. Plisko. *Zhur. Obshchei Khim.* 24, 2071-5(1954); cf. *C.A.* 49, 8280*f*.—Dry chitin (6 g.) frozen and thawed 5 times in the presence of 90 ml. 30% NaOH, and the swollen and squeezed product triturated with 17 g. $HOCH_2CH(OH)CH_2Cl$ in Me_2CO 40 hrs. at 60°, washed with H_2O, and neutralized with AcOH yielded 5.8 g. product which did not swell in H_2O or 4% NaOH. Repeated alkylation as above yielded the final product, analysis corresponded to $C_{11}H_{17}O_{6.5}N_{0.9}$, contg. 40% glyceryl residues; products with lower substitution are sol. in aq. H_2SO_4 and HCl, as well as H_3PO_4, while the above product was insol. and was not swelled by NaOH. Chitin treated with NaOH as above, then with glycidol 12–30 hrs. at 56°, yielded products with up to 42.45% glyceryl residues; after 3-fold treatment, the product was $C_{18.4}H_{31.8}O_{11.4}N_{1.6}$. The products of low degree of substitution swell in AcOH and are sol. in mineral acids, while higher degree of alkylation resulted in products which swelled in 4–8% NaOH and even H_2O. The success of the reaction depends on the thawing technique. G. M. Kosolapoff

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(1)

PLISKO, Ye. A.

79-2-26/58

AUTHORS: Klenkova, N. I. and Plisko, Ye. A.

TITLE: Hydrophilic Properties and the Swelling Points of Chitin (Gidrofil'nye svoystva i Teploty Nabukhaniya Khitina)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 399-402 (U.S.S.R.)

ABSTRACT: Experiments were conducted to determine the hydrophilic properties and swelling points of chitin ($C_{15}H_{26}O_{10}N_2$) and compare them with analogous data for cellulose fibers.

It was established that the specific heat of chitin is close in magnitude to that of cellulose fibers. The moisture absorbed by chitin at 100% relative humidity in contrast to cellulose fibers freezes almost completely which indicates that chitin has no greater internal active surface where the water molecules are retained. It was found that chitin has a hygroscopicity close to mercerized cellulose fibers and considerably greater than ramie fibers. A study of the swelling points of chitin in sodium hydroxide solutions showed that the reaction of the hydroxyl groups with NaOH molecules in chitin is quite complicated. The data obtained

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Hydrophilic Properties and the Swelling Points of Chitin 79-2-26/58

indicate that the structure of chitin is less accessible to reagents than the structure of cellulose fibers which lies in direct relationship with the low reactivity of chitin during esterification.

Air-dry chitin as well as chitin desiccated at 105° is highly water absorbing and calorimetric measurements were possible within several minutes.

2 tables. There are 5 references, of which 4 are Slavic

ASSOCIATION: USSR Academy of Sciences, Institute of High Molecular Compounds

PRESENTED BY:

SUBMITTED: March 10, 1956

AVAILABLE: Library of Congress

Card 2/2

DANILOV, S.N.; PLISKO, Ye.A.

Chitin. Part 12 Synthesis and properties of carboxymethylchitin. Zhur. ob. khim. 32 no. 2 [illegible] (MIRA 15:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Chitin)

PLISKO, Ye.A.

Synthesis of cellulose ethers by means of benzenesulfonates.
Zhur. ob. khim. 31 no. 2:474-476 F '61. (MIRA 14:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Cellulose) (Benzenesulfonic acid)

L 17901-63 EWP(j)/EWT(m)/BDS ASD Pc-4 RM

ACCESSION NR: AP3003772 S/0080/63/036/006/1303/1307

AUTHORS: Plisko, Ye. A.; Topnova, I. G.; Danilov, S. N. 59

TITLE: Obtaining simple esters of cellulose containing substitutes with a branched carbon chain

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 6, 1963, 1303-1307

TOPIC TAGS: ester, cellulose, carbon chain, isopropane, isobutane, tributane

ABSTRACT: It has been shown that previously-described unknown isopropane isobutane and tributane esters of the benzolsulphuric acids are alkalazing media. The films from tributane isopropane esters of cellusose possess high mechanical properties. Orig. art. has: 6 tables.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 08Aug62 DATE ACQ: 07Aug63 ENCL: 00

SUB CODE: GH NO REF SOV: 004 OTHER: 002

Card 1/1

KOZLOV, M.P.; KOZ'MINA, O.P.; PLISKO, Ye. A. DANILOV, S.N.

Mechanism of oxidation of cellulose ethers by oxygen. Part 15: Effect of the chain length of the substituent in aliphatic cellulose ethers on their oxidation rate. Vysokom.soed. 5 no.3:424-427 Mr '63. (MIRA 16:3)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Cellulose ethers) (Oxidation) (Substitution (Chemistry))

ANIKEYEVA, A.; PLISKO, Ye.

Stepan Nikolaevich Danilov; on his seventieth birthday. Zhur. prikl. khim. 32 no.1:3-5 Ja '59. (MIRA 12:4)
(Danilov, Stepan Nikolaevich, 1888-)

PLISKO, Ye.M.

Search for new synthesis of cellulose ethers. Zhur.ob.khim. 28 no.12:3214-3216 D '58. (MIRA 12:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Cellulose)

PLISKO, Ye.A.; OKUN', M.G.; GRAD, N.M.; GINTSE, N.F.

Work of S.N. Danilov in the field of cellulose and its ethers and esters. Zhur.ob.khim. 28 no.12:3174-3184 D '58. (MIRA 12:2)
(Danilov, Stepan Nikolaevich, 1889-)
(Cellulose)

AUTHORS: Danilov, S. N., Plisko, Ye. A. SOV/79-28-8-45/66

TITLE: Investigation of Chitin (Izucheniye khitina) III. Hydroxy-Ethyl- and Ethyl Ether of Chitin (Oksietilovyye i etilovyye efiry khitina)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2217 - 2223 (USSR)

ABSTRACT: The authors had previously pointed out that the synthesis of chitin ether is made difficult by the fact that chitin is swelling very little in the solutions of alkali (Ref 1). The investigation of the heats of swelling (Ref 2) in solutions of sodium hydroxide shows that the reaction of chitin is inhibited by the lye. In former attempts to attain the hydroxy-ethyl ethers of chitin it was found that these are not formed under the same conditions as in the synthesis of the hydroxy-ethyl ethers of cellulose. The etherification- and activation conditions with alkali liquor were varied: chitin was treated with alkali during freezing, the etherification was carried out at higher temperature which took more time. Besides, the chitin was used in the etherification in various states of pulverization whereat the molecular

Card 1/3

Investigation of Chitin. III. Hydroxy-Ethyl- and Ethyl Ether of Chitin

SOV/79-28-8-45/66

ratio between it and the ethyleneoxide was also varied. Hydroxy-ethyl ethers of a high degree etherification were obtained which are soluble in water and diluted sodium hydroxide. The ethylation of the chitin treated with alkali liquor was performed with ethyl chloride in sealed tubes in the autoclave. The newly synthesized ethyl-ethers of chitin are soluble in alcohols, ketones, hydrocarbons and esters. The films from ethyl chitin are equal to those from ethyl cellulose as far as their durability is concerned. There are 3 figures, 4 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-Molecular Compounds, AS USSR)

SUBMITTED: July 4, 1957

Card 2/3

Investigation of Chitin. III. Hydroxy-Ethyl- and Ethyl Ether of Chitin

SOV/79-28-8-45/66

Card 3/3

AUTHOR: Plisko, Ye. A. SOV/79-28-12-10/41

TITLE: Search for New Ways of Synthesizing Cellulose Ethers (Izyskaniye novykh putey sinteza prostykh efirov tsellyulozy)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 12, pp 3214-3216 (USSR)

ABSTRACT: The synthesis of low-substituted methyl and ethyl ethers of cellulose by means of dialkyl sulfates is troublesome, not to mention their harmful character. It was, therefore, of interest to find new alkylation agents for cellulose. The methyl and ethyl esters of the p-toluenesulfonic acid were used as alkylation agents besides in other compounds (Refs 1-3), also for cellulose, yet the properties of the ethers obtained were not described (Ref 4). In the present paper the alkylation of cellulose was carried out with p-toluene sulfates as well as with toluene-di, benzene- and α-naphthalene sulfates according to the scheme:

$$RSO_2OR_1 + (C_6H_{10}O_5)_n \longrightarrow \left[C_6H_{10-x}O_{5-x}(OR_1)_x\right] n, \text{ where}$$

$$R=C_6H_5, CH_3C_6H_5, C_{10}H_7, R_1=CH_3, C_2H_5, n.\text{-}C_3H_7, n.\text{-}C_4H_9, C_6H_5$$

Card 1/3

Alkali cellulose, a cellulose dissolved in triethyl benzylammonium hydroxide, and a hydrocellulose dissolved in a 9-10% soda lye were alkylated. The alkylation of alkali cellulose failed. The alkylation of cellulose in the solution of an organic base takes place more intensely than in an alkali solution, with even in the latter case only 3-10% methyl or ethyl radicals being introduced, as compared to the 12-35% in the former case. In the alkylation of the cellulose dissolved in alkali liquor with benzene sulfates the methyl ester reacts more readily than the ethyl ester, and the latter more readily than propyl ester etc., which, however, is not the case when using a cellulose dissolved in an organic base, as that reaction takes place more intensely. For details see experimental part. There are 2 tables and 5 references, 2 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-Molecular Compounds, Academy of Sciences, USSR)

AUTHORS: Plisko, Ye. A., Okun', M. G., Grad, N. M., Gintse, N. F. SOV/79-28-12-3/41

TITLE: On S. N. Danilov's Work in the Field of Cellulose and Its Ethers (O rabotakh S. N. Danilova v oblasti tsellyulozy i yeye efirov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 28, Nr 12, pp 3174-3184 (USSR)

ABSTRACT: The manifold scientific activity of Danilov was closely connected with the chemistry of cellulose and its derivatives, as well as with alginic acid and chitin. It led to new findings on the behavior of cellulose to its solvents, on nitrocellulose, acetyl cellulose, nitro-acetyl cellulose, cellulose ether, the hydrolysis of alginic acid, and chitin. Together with Gintse, N.F. Danilov investigated the solution conditions of cellulose in phosphoric acid (Ref 104), and it was found that the hydrates play an important role in their dissolution in concentrated solutions of the electrolytes. A new method for the determination of the copper numbers required for important outstanding properties of cellulose (Ref 67) was devised. The investigation of the cellulose molecules with one oxygen less,

Card 1/3

their desoxy, anhydride and unsaturated derivatives raised great interest. The use of acetyl cellulose membranes as a substitute of glass in hotbeds was worked out. Danilov's excellent investigation of the nitration of cellulose was proof of the nitration theory devised by Mendeleyev-Sapozhnikov (Ref 68). The oxy-butyl ethers of cellulose (Ref 51) and the carboxy-methyl cellulose (Ref 35) were synthesized for the first time. The work carried out by Danilov and his cooperators on chitin considerably widened the knowledge of natural polymers. His work in the field of cellulose ether and cellulose ester is directly continued by his work on cuprammonia solutions of cellulose, xanthates, and viscose. The cuprammonia solution of cellulose consists, according to Danilov, of the high-molecular compound: $\{(C_6H_{10}O_5)_x \cdot [Cu(NH_3)_m(OH)_2]_y \cdot (H_2O)_z\}_n$, where the cellulose and the cuprammonia base form a molecular compound of variable compositon at the expense of the hydrogen

bonds. The viscose research was widened by new knowledge and was put on a new basis (its compositon during the process of maturation). In Danilov's laboratory synthesis methods were devised which are closely connected with the technology of viscose processing. There are 141 references, 130 of which are Soviet.

DANILOV, S.N.; PLISKO, Ye.A.

Study of chitin. Part 3: Oxyethyl and ethyl chitine ethers. Zhur. ob. khim. 28 no. 8:2217-2223 Ag '58. (MIRA 11:10)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Chitin)

PLISKO, Ye.A.

DANILOV, S.N.; PLISKO, Ye.A.

Study of chitin. Part 2. Glycerination of chitin ethers. Zhur.ob. khim.24 no.11:2071-2075 N '54. (MLRA 8:3)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
(Chitin) (Glycerol)

PLISKO, Ye. A.

KLENKOVA, N.I.; PLISKO, Ye.A.

Hydrophilic properties and heat of swelling of chitin. Zhur. ob. khim. 27 no.2:399-402 F '57. (MLRA 10:6)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
(Chitin)

DANILOV, S.N.; PLISKO, Ye.A.; PYATVINEN, E.A.

Ethers and the reactivity of cellulose and chitin. Izv. AN SSSR. Otd.khim.nauk no.8:1500-1506 Ag '61. (MIRA 14:8)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Cellulose ethers)
(Chitin)

PLISKO, Yu., inzhener-mayor puti i stroitel'stva

Using cable cranes at railroad coal depots. Zhel.dor.transp. no.10: 86-87 0'47. (MIRA 8:12)

(Cranes, derricks, etc.)

L 04682-67 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c) JD

ACC NR: AR6020937 SOURCE CODE: UR/0137/66/000/002/B018/B018

AUTHOR: Pipko, A. I.; Pliskovskiy, V. Ya.; Puzyriyskiy, Yu. S. 32 B

TITLE: Component transfer mechanisms in vacuum and hydrogen resistance furnaces

SOURCE: Ref. zh. Metallurg, Abs. 2B120

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 45, 1965, 17-21

TOPIC TAGS: vacuum furnace, resistance furnace

TRANSLATION: A description of several types of a transfer mechanism for components is presented, the transfer mechanism being one of the basic units of continuous vacuum and hydrogen resistance furnaces. In particular, a schematic of the "walking beam" transfer mechanism used in the LM-4460 continuous vacuum furnace is described and characteristics of this type of transfer mechanism are enumerated. It was demonstrated that this transfer mechanism may be used with minimum maintenance in vacuum furnaces with different standard dimensions. The construction of transfer mechanism units, designed for operation under ultrahigh vacuum conditions is described (the vacuum in the operating zone of the furnace $\approx 1 \cdot 10^{-8}$ mm Hg). 6 figures, 5 references. V. Pryanikova.

SUB CODE: 13

Heat treating

UDC: 669:621.783:621.365.4

Card 1/1

L 8790-66 EWT(m)/EWP(w)/ETC(m) WW/EM

ACC NR: AP5028028 SOURCE CODE: UR/0119/65/000/011/0008/0010

AUTHOR: Plisskin, Yu. S. (Candidate of technical sciences); Suchkov, Yu. S. (Engineer)

ORG: none

TITLE: Measuring the average forces by string-type and vibration-frequency sensors in the presence of vibrations

SOURCE: Priborostroyeniye, no. 11, 1965, 8-10

TOPIC TAGS: mechanical force, force measurement

ABSTRACT: The problem of measuring the average force upon which vibrations are superposed is considered; the force is measured by the number of pulses per unit time counted by an output instrument. Two types of errors — a dynamic cut-off error and a dynamic nonlinearity error — are recognized. The cutoff error

Card 1/2 UDC: 620.178.53:621.3.088.24

PLISKIN, Yu.S., kand.tekhn.nauk; SUCHKOV, Yu.S., inzh.

Measuring mean values of stresses with sire and vibration-frequency pickups in the presence of vibrations. Priborostroenie no.11:8-10 N '65. (MIRA 18:12)

AKIMOV, N.I.; VOLKOV, S.P.; KONOVALOVA, N.A.; OSINOVSKAYA, R.I.; PLISKO, Yu.Yu.; SEVEROV, M.N.; STEPANOV, L.A.; SHCHUKIN, V.Ya.; VORONICHEV, M.P., red.; TSARENKO, A.P., red.; VERINA, G.P., tekhn.red.

[International railroad transportation] Mezhdunarodnye zheleznodorozhnye soobshchenila. Pod red. M.P.Voronicheva. Moskva, Gos. transp.zhel-dor.izd-vo, 1959. 242 p. (MIRA 13:2)
(Railroads)

PLISKO ZOYA

PLISKO, Zoya.

The dearest of all. Rad.i sial. 33 no.12:19-20 D '57. (MIRA 10:12)
(Minsk--Courts)
(Women as judges)

PLISKONOS, K.

Metal in excess of the plan. Sov.profsoiuzy 7 no.1:43
Ja '60. (MIRA 12:12)

1. Predsedatel' komiteta profsoyuza Magnitogorskogo metallurgicheskogo kombinata.
(Magnitogorsk--Steel industry) (Socialist competition)

PLISKOVA, Marta, inz.; HAMATOVA, Eva, inz. dr., ScC.

Effect of mulching on the development of microflora. Rost vyroba 9 no.5:501-510 '63.

1. Ustredni vyzkumny ustav rostlinne vyroby, mikrobiologicke oddeleni, Ruzyne.

PLISKOVSKAYA, L.K., podpolkovnik meditsinskoy sluzhby

Features of the clinical course of diffuse nephritis. Voen-med. zhur. no.10:14-18 O '59. (MIRA 13:3)
(NEPHRITIS)

L 04060-67 EWP(k)/EWT(d)/EWT(m)/T/EWP(l)/EWP(v)/EWP(t)/EWP(h)/ETI JD/HW

ACC NR: AP6027433 SOURCE CODE: UR/0125/66/000/007/0060/0062

AUTHOR: Yermolayev, A. P. (Moscow); Zlatkis, I. V. (Moscow); Pipko, A. I. (Moscow); Pliskovskiy, V. Ya. (Moscow); Puzyriyskiy, Yu. S. (Moscow); Tsybul'skiy, I. Yu. (Moscow)

ORG: none

45

B

TITLE: Following mechanism for arc welding in an inert gas

SOURCE: Avtomaticheskaya svarka, no. 7, 1966, 60-62

TOPIC TAGS: arc welding, inert gas welding, feed mechanism

ABSTRACT: The article describes the construction details of a new type following mechanism said to assure stability of the geometric dimensions of the welding seam in welding in inert gases with high ionization potentials (for example, helium). (See Fig. 1)

Card 1/3 UDC: 621.791.856.03

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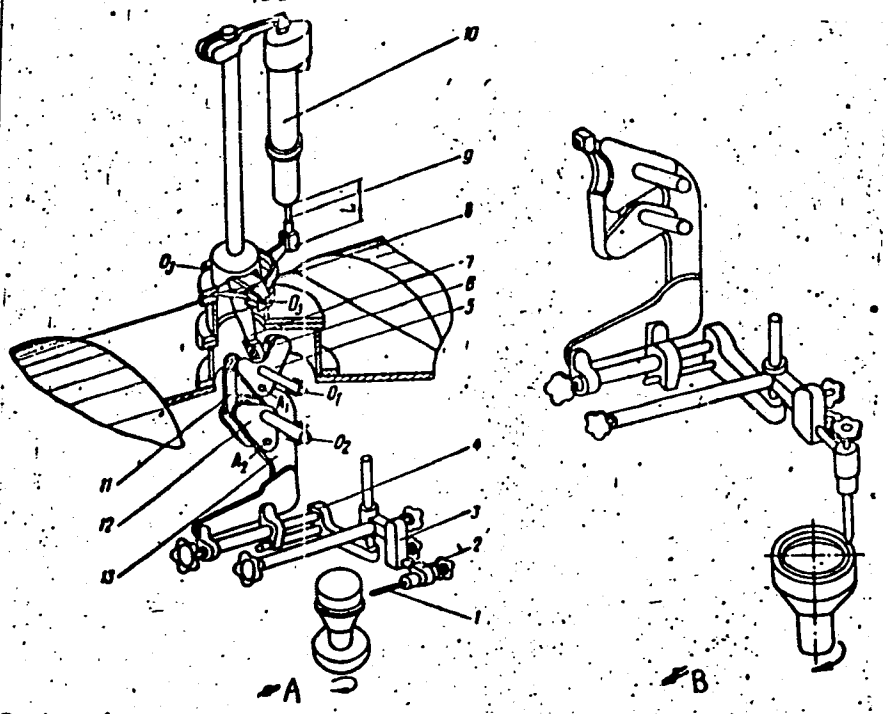

Figure 1.
Construction of following mechanism

a--in position for welding seams on a cylindrical surface; b--the same for an end surface.

Card 2/3

L 04060-67
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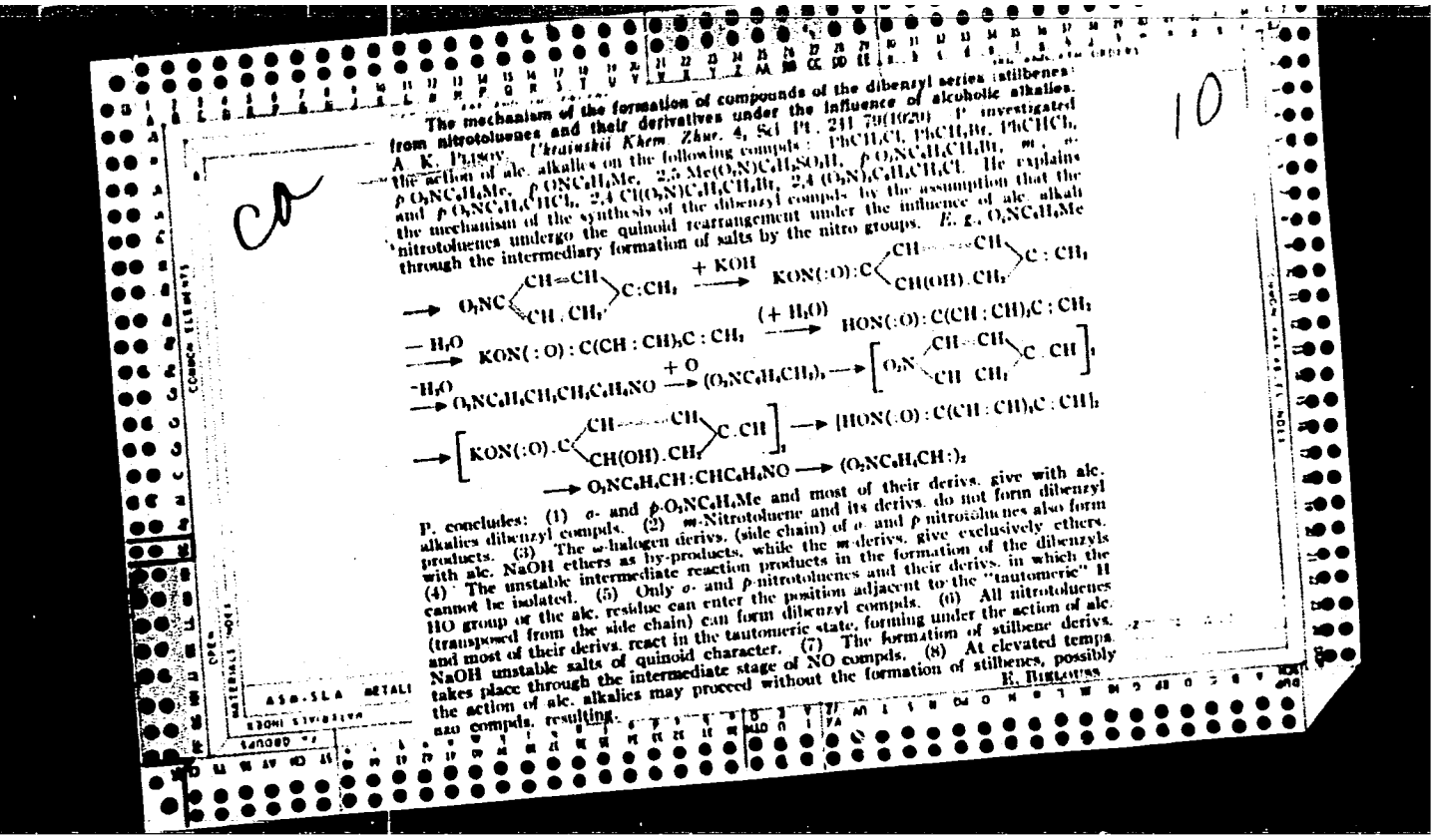
Electrode 1 is fastened to support 13 by means of clamps 2, 3, and 4. Clamp 2 makes it possible to rotate the electrode in a vertical plane and to change its position from the horizontal (Fig. 1, a) to the vertical (Fig. 1, b). Clamps 3 and 4 make it possible to regulate, respectively, the vertical and horizontal positions of the electrode. The support is connected by a swivel joint with levers 12 and 5, which are connected between themselves by link 11. Lever 5, with the aid of link 6 and lever 7, is connected in a swivelling fashion with shaft 9, which can execute forward and backward displacements, activated by a Type MP-100M of SL-161 electric motor, 10, with a built-in reducer. Experimental tests of the mechanism in argon arc welding have shown reliable maintenance of an interelectrode gap of 1 mm, with an accuracy of ± 10%, in a range of welding currents from 15 to 150 amps. The article also gives a detailed diagram of the electric control circuit. Orig. art. has: 2 figures.

SUB CODE: 13/ SUBM DATE: 02Mar66/ ORIG REF: 004

kh

Card 3/3



The mechanism of the formation of compounds of the dibenzyl series (stilbenes) from nitrotoluenes and their derivatives under the influence of alcoholic alkalies.

A. K. Pikaev. *Ukrainskii Khem. Zhur.* 4, Sci. Pt., 241-70(1929). P. investigated the action of alc. alkalies on the following compds.: $PhCH_2Cl$, $PhCH_2Br$, $PhCHCl_2$, $p\text{-}O_2NC_6H_4Me$, $p\text{-}ONC_6H_4Me$, 2,5 $Me(O_2N)C_6H_3SO_3H$, $p\text{-}O_2NC_6H_4CH_2Br$, m-, o-, and $p\text{-}O_2NC_6H_4CHCl_2$, 2,4 $Cl(O_2N)C_6H_3CH_2Br$, 2,4 $(O_2N)_2C_6H_3CH_2Cl$. He explains the mechanism of the synthesis of the dibenzyl compds. by the assumption that the nitrotoluenes undergo the quinoid rearrangement under the influence of alc. alkali through the intermediary formation of salts by the nitro groups. *E. g.*, $O_2NC_6H_4Me$

$$\longrightarrow O_2NC\begin{matrix}CH{=}CH\\ CH.CH_2\end{matrix}\!\!>C:CH_2 \xrightarrow{+KOH} KON(:O):C\begin{matrix}CH\text{---}CH\\ CH(OH).CH_2\end{matrix}\!\!>C:CH_2$$

$$\xrightarrow{-H_2O} KON(:O):C(CH:CH)_2C:CH_2 \xrightarrow{(+H_2O)} HON(:O):C(CH:CH)_2C:CH_2$$

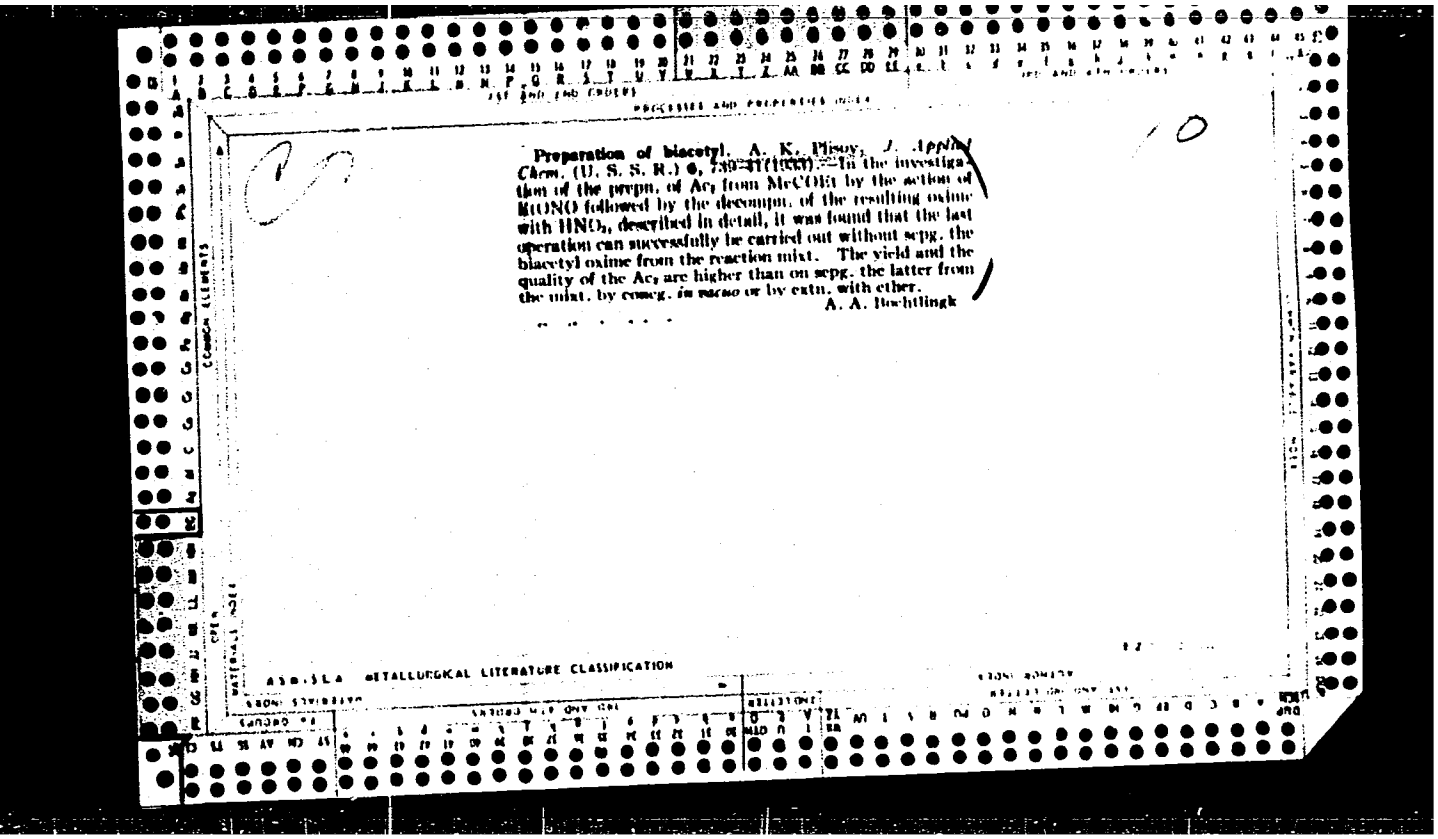
$$\xrightarrow{-H_2O} O_2NC_6H_4CH_2CH_2C_6H_4NO \xrightarrow{+O} (O_2NC_6H_4CH_2)_2 \longrightarrow \left[O_2N\begin{matrix}CH\text{---}CH\\ CH.CH_2\end{matrix}\!\!>C.CH\right]_2$$

$$\longrightarrow \left[KON(:O).C\begin{matrix}CH\text{---}CH\\ CH(OH).CH_2\end{matrix}\!\!>C.CH\right]_2 \longrightarrow [HON(:O):C(CH:CH)_2C:CH]_2$$

$$\longrightarrow O_2NC_6H_4CH:CHC_6H_4NO \longrightarrow (O_2NC_6H_4CH:)_2$$

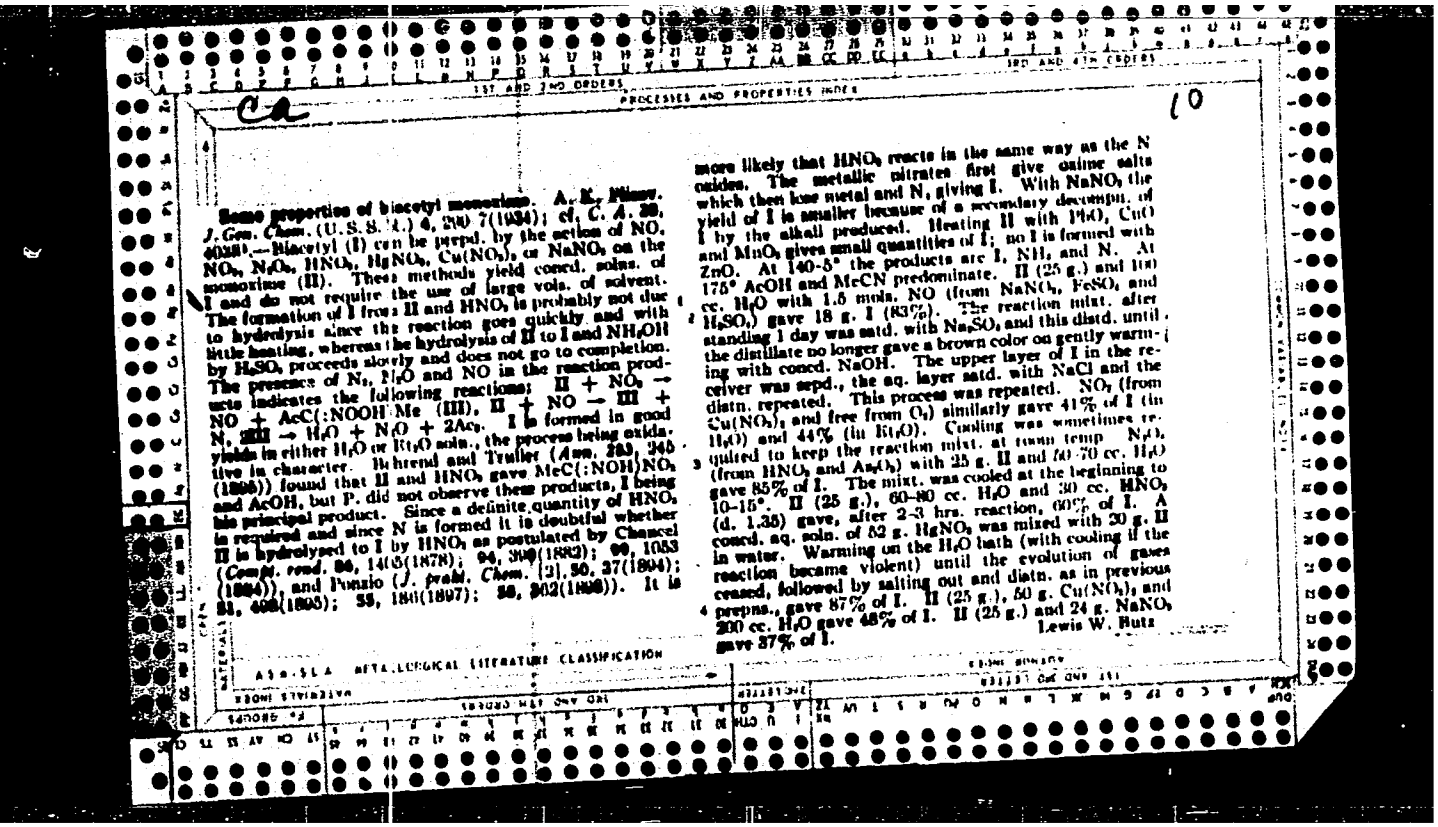
P. concludes: (1) o- and $p\text{-}O_2NC_6H_4Me$ and most of their derivs. give with alc. alkalies dibenzyl compds. (2) m-Nitrotoluene and its derivs. do not form dibenzyl products. (3) The ω-halogen derivs. (side chain) of o- and p-nitrotoluenes also form with alc. NaOH ethers as by-products, while the m-derivs. give exclusively ethers. (4) The unstable intermediate reaction products in the formation of the dibenzyls cannot be isolated. (5) Only o- and p-nitrotoluenes and their derivs. in which the HO group of the alc. residue can enter the position adjacent to the "tautomeric" H (transposed from the side chain) can form dibenzyl compds. (6) All nitrotoluenes and most of their derivs. react in the tautomeric state, forming under the action of alc. NaOH unstable salts of quinoid character. (7) The formation of stilbene derivs. takes place through the intermediate stage of NO compds. (8) At elevated temps. the action of alc. alkalies may proceed without the formation of stilbenes, possibly azo compds. resulting.

K. Bigelowss



Preparation of biacetyl. A. K. Pisov, *J. Applied Chem.* (U. S. S. R.) **6**, 739–41(1933).—In the investigation of the prepn. of Ac_2 from MeCOEt by the action of RiONO followed by the decompn. of the resulting oxime with HNO_3, described in detail, it was found that the last operation can successfully be carried out without sepg. the biacetyl oxime from the reaction mixt. The yield and the quality of the Ac_2 are higher than on sepg. the latter from the mixt. by crystg. *in vacuo* or by extn. with ether.

A. A. Bochtlingk



Ca

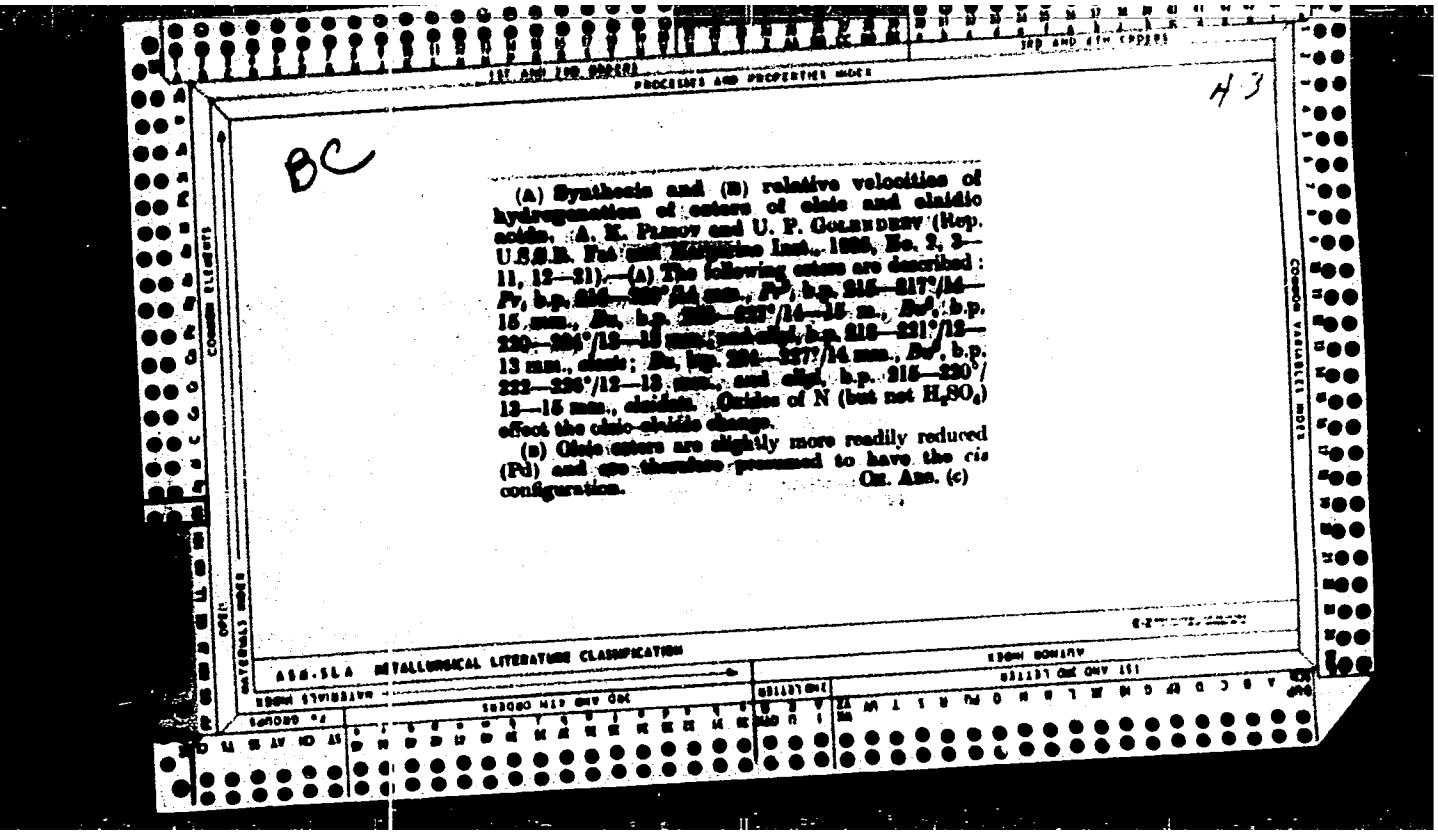
PROCESSES AND PROPERTIES INDEX

10

Some properties of biacetyl monoxime. A. E. Hinsv. *J. Gen. Chem.* (U.S.S.R.) 6, 280-7(1936); cf. *C. A.* 30, 40281.—Biacetyl (I) can be prepd. by the action of NO, NO_2, N_2O_3, HNO_3, $HgNO_3$, $Cu(NO_3)_2$ or $NaNO_2$ on the monoxime (II). These methods yield concd. solns. of I and do not require the use of large vols. of solvent. The formation of I from II and HNO_3 is probably not due to hydrolysis since the reaction goes quickly and with little heating, whereas the hydrolysis of II to I and NH_2OH by H_2SO_4 proceeds slowly and does not go to completion. The presence of N_2, N_2O and NO in the reaction products indicates the following reactions: II + NO_2 → NO + AcC(:NOOH)Me (III), II + NO → III + N_2, III → H_2O + N_2O + 2Ac. I is formed in good yields in either H_2O or Et_2O solns., the process being oxidative in character. Behrend and Thaller (*Ann.* 283, 345 (1896)) found that II and HNO_3 gave MeC(:NOH)NO_2 and AcOH, but P. did not observe these products, I being his principal product. Since a definite quantity of HNO_3 is required and since N is formed it is doubtful whether II is hydrolyzed to I by HNO_3 as postulated by Chancel (*Compt. rend.* 86, 1405(1878); 94, 309(1882); 99, 1053 (1884)), and Ponzio (*J. prakt. Chem.* [2], 50, 27(1894); 51, 408(1895); 55, 184(1897); 56, 302(1898)). It is more likely that HNO_3 reacts in the same way as the N oxides. The metallic nitrates first give oxime salts which then lose metal and N, giving I. With $NaNO_2$ the yield of I is smaller because of a secondary decompn. of I by the alkali produced. Heating II with PbO, CuO and MnO_2 gives small quantities of I; no I is formed with ZnO. At 140-5° the products are I, NH_3 and N. At 175° AcOH and MeCN predominate. II (25 g.) and 100 cc. H_2O with 1.5 mols. NO (from $NaNO_2$, $FeSO_4$ and H_2SO_4) gave 18 g. I (83%). The reaction mixt. after standing 1 day was satd. with Na_2SO_4 and this distd. until the distillate no longer gave a brown color on gently warming with concd. NaOH. The upper layer of I in the receiver was sepd., the aq. layer satd. with NaCl and the distn. repeated. This process was repeated. NO_2 (from $Cu(NO_3)_2$ and free from O_2) similarly gave 41% of I (in H_2O) and 44% (in Et_2O). Cooling was sometimes required to keep the reaction mixt. at room temp. N_2O_3 (from HNO_3 and As_2O_3) with 25 g. II and 50-70 cc. H_2O gave 85% of I. The mixt. was cooled at the beginning to 10-15°. II (25 g.), 60-80 cc. H_2O and 30 cc. HNO_3 (d. 1.35) gave, after 2-3 hrs. reaction, 60% of I. A concd. aq. soln. of 82 g. $HgNO_3$ was mixed with 20 g. II in water. Warming on the H_2O bath (with cooling if the reaction became violent) until the evolution of gases ceased, followed by salting out and distn. as in previous preps., gave 87% of I. II (25 g.), 50 g. $Cu(NO_3)_2$ and 200 cc. H_2O gave 48% of I. II (25 g.) and 24 g. $NaNO_2$ gave 37% of I.

Lewis W. Butz

A59-51A METALLURGICAL LITERATURE CLASSIFICATION

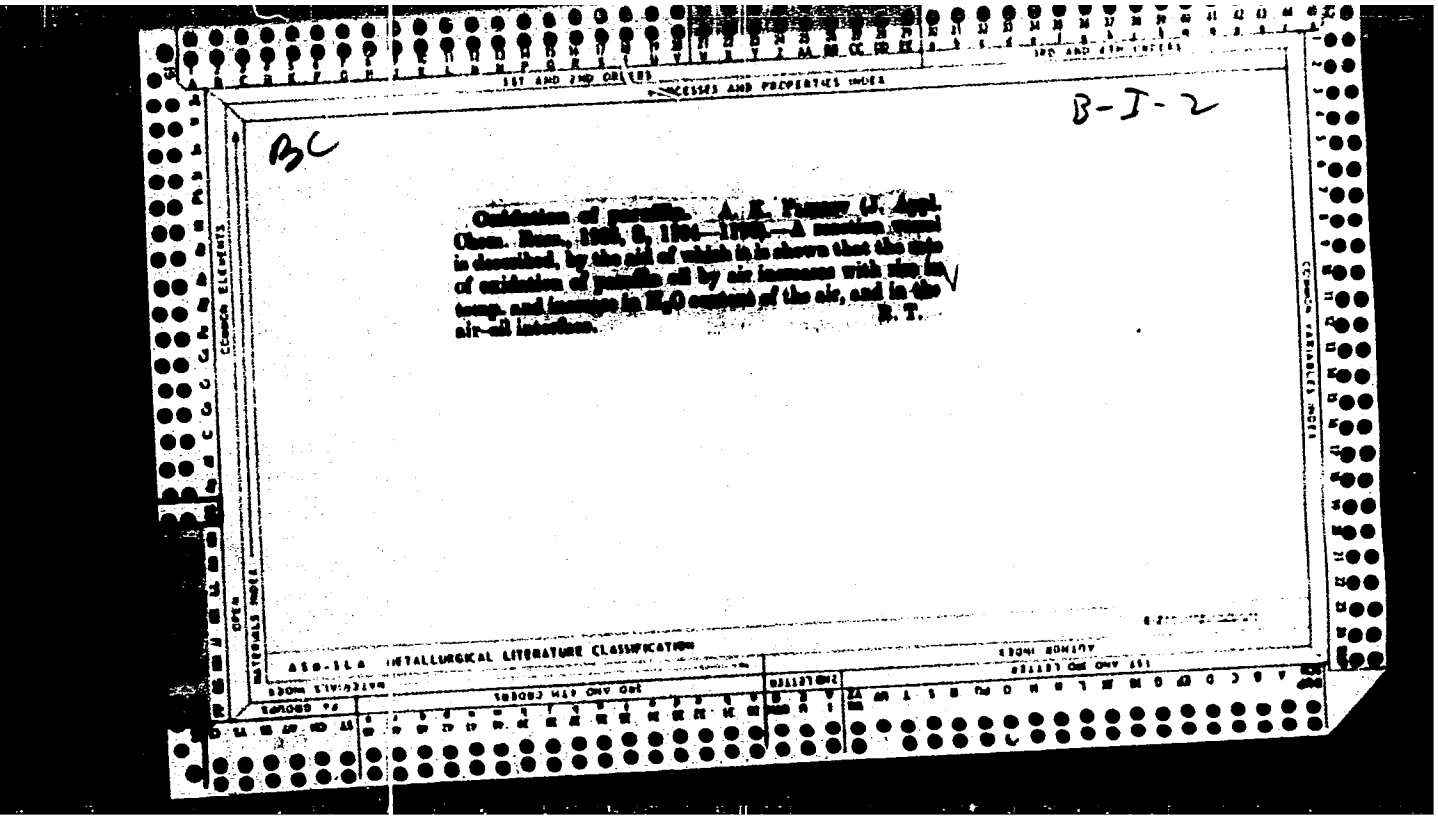


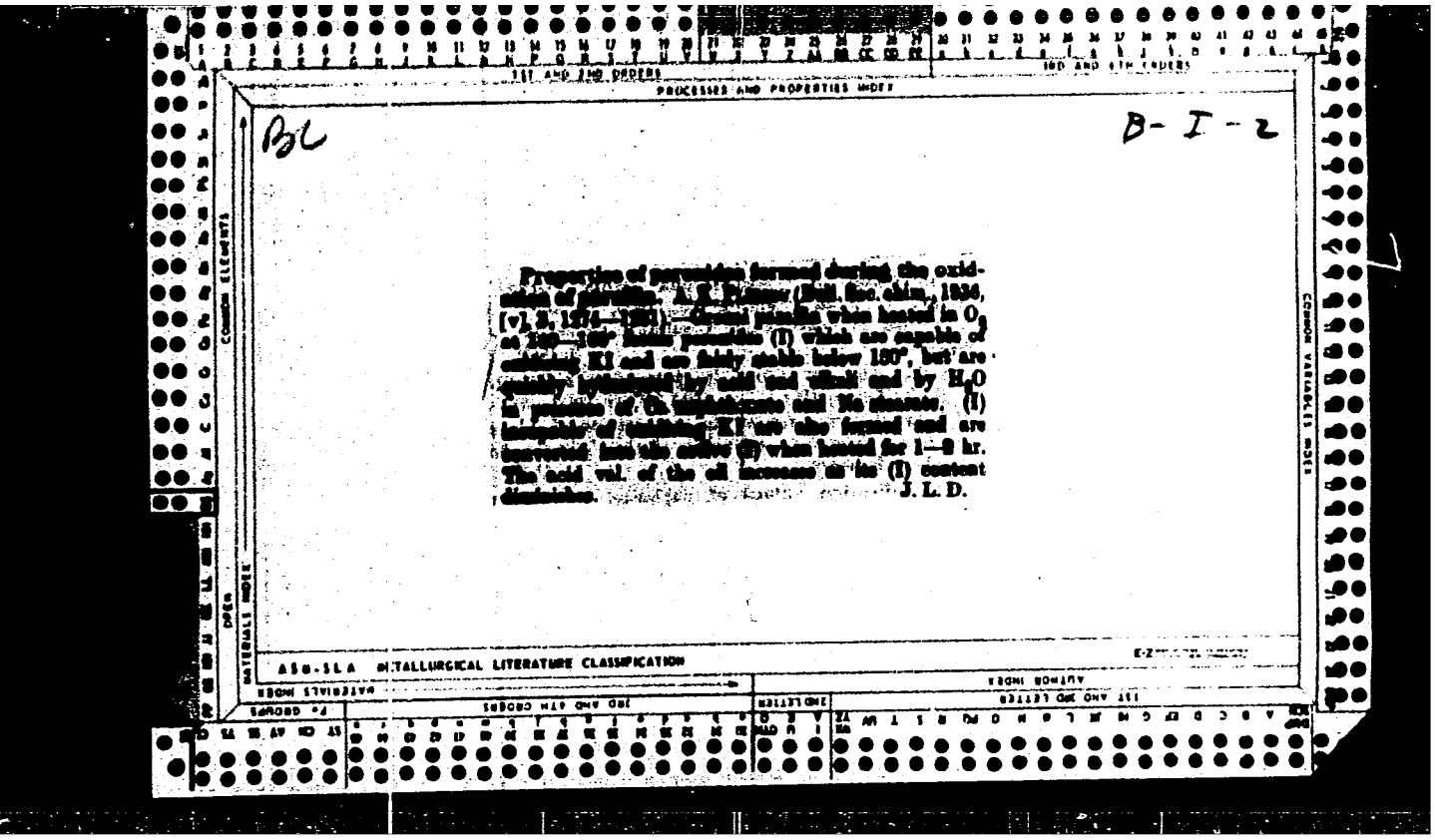
BC

H3

(A) Synthesis and (B) relative velocities of hydrogenation of esters of oleic and elaidic acids. A. E. Pranov and U. P. Goldendikv (Rep. U.S.S.R. Fat and Soapstone Inst., 1935, No. 2, 3—11, 12—21).—(A) The following esters are described: *Pr*, b.p. 216—220°/14 mm., *Pr*, b.p. 215—217°/14—15 mm., *Bu*, b.p. 220—222°/14—15 m., *Bu*, b.p. 220—221°/12—13 mm., oleic; *Bu*, b.p. 226—227°/14 mm., *Bu*, b.p. 222—226°/12—13 mm., and allyl, b.p. 215—220°/12—15 mm., oleates. Oxides of N (but not H_2SO_4) effect the oleic-elaidic change.

(B) Oleic esters are slightly more readily reduced (Pd) and are therefore presumed to have the *cis* configuration. Ch. Abs. (c)



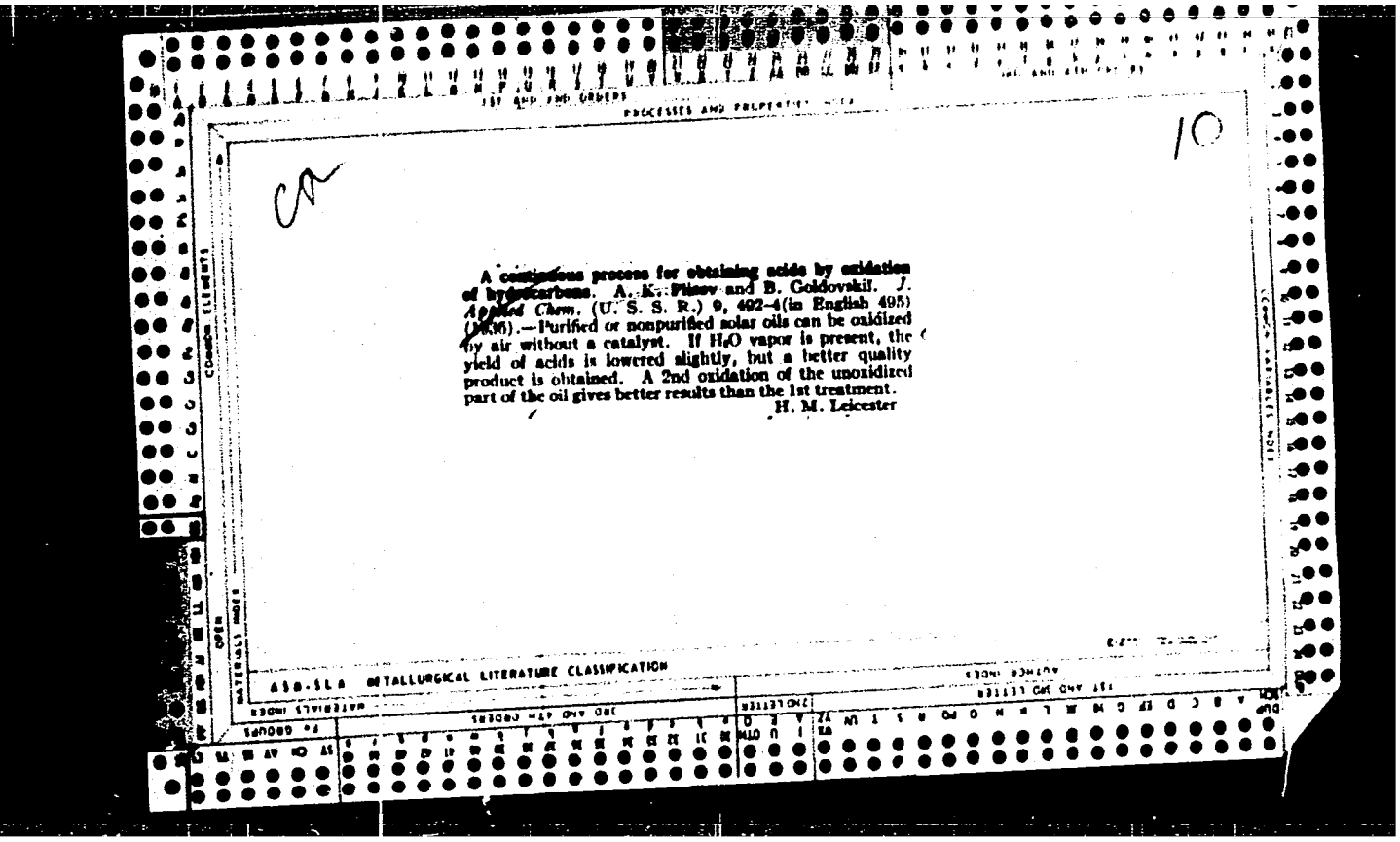


BL

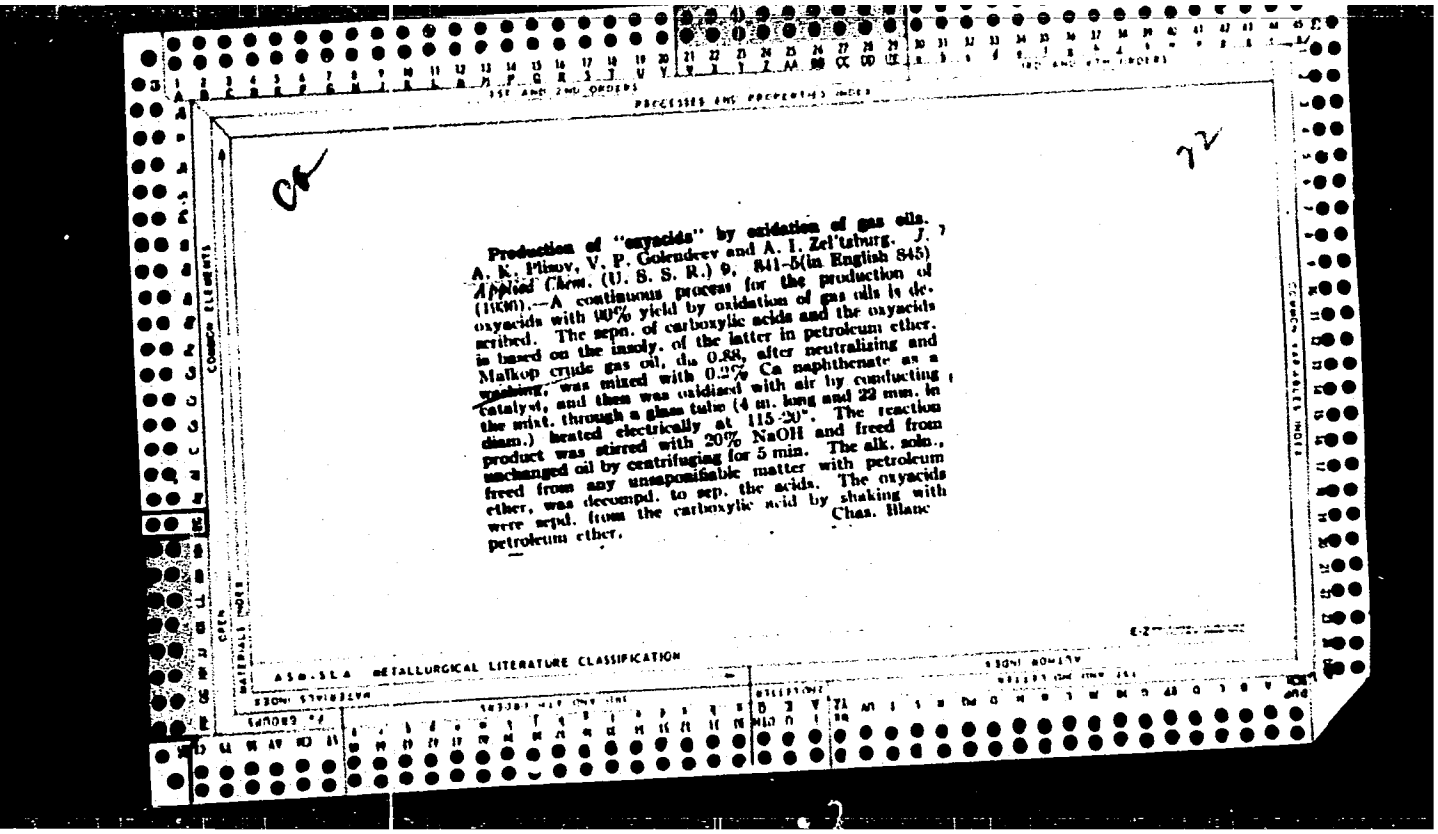
B-I-2

Properties of peroxides formed during the oxidation of gasoline. A. E. Dunstan (Brit. Soc. chim., 1936, [v], 3, 1274—1281). Oxidised gasoline when heated in O_2 at 100°—120° forms peroxides (I) which are capable of oxidising KI and are fairly stable below 150°, but are readily hydrolysed by cold and alkali and by H_2O in presence of CO_2, sulphurous and SO_2 gases. (I) in presence of oxidising KI are also formed and are recovered, but this oxidise (I) when heated for 1—2 hr. The acid val. of the oil increases on (I) content diminishes. J. L. D.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



A continuous process for obtaining acids by oxidation of hydrocarbons. A. K. Plisov and B. Goldovskiĭ. *J. Applied Chem.* (U. S. S. R.) 9, 492–4(in English 495) (1936).—Purified or nonpurified solar oils can be oxidized by air without a catalyst. If H_2O vapor is present, the yield of acids is lowered slightly, but a better quality product is obtained. A 2nd oxidation of the unoxidized part of the oil gives better results than the 1st treatment.
H. M. Leicester



Production of "oxyacids" by oxidation of gas oils. A. K. Plisov, V. P. Golendrev and A. I. Zel'tsburg. *J. Applied Chem.* (U. S. S. R.) 9, 841-5(in English 845) (1936).—A continuous process for the production of oxyacids with 80% yield by oxidation of gas oils is described. The sepn. of carboxylic acids and the oxyacids is based on the insoly. of the latter in petroleum ether. Malkop crude gas oil, d_{20} 0.88, after neutralizing and washing, was mixed with 0.2% Ca naphthenate as a catalyst, and then was oxidized with air by conducting the mixt. through a glass tube (4 m. long and 22 mm. in diam.) heated electrically at 115-20°. The reaction product was stirred with 20% NaOH and freed from unchanged oil by centrifuging for 5 min. The alk. soln., freed from any unsaponifiable matter with petroleum ether, was decompd. to sep. the acids. The oxyacids were sepd. from the carboxylic acid by shaking with petroleum ether.

Chas. Blanc

PLISOV, A. K.

"On the Properties of Peroxides in Oxidized Paraffin," Zhur. Obshch. Khim., 9, No. 2, 1939. Laboratory of Organic Chemistry, Krasnodarsk Chemico-Technological, Institute of the Fat Industry imeni Molotov. Received 25 May 1938.

Report U-1517, 22 Oct 1951

PLISOV, A. K., GREBENNIKOVA, M. D.

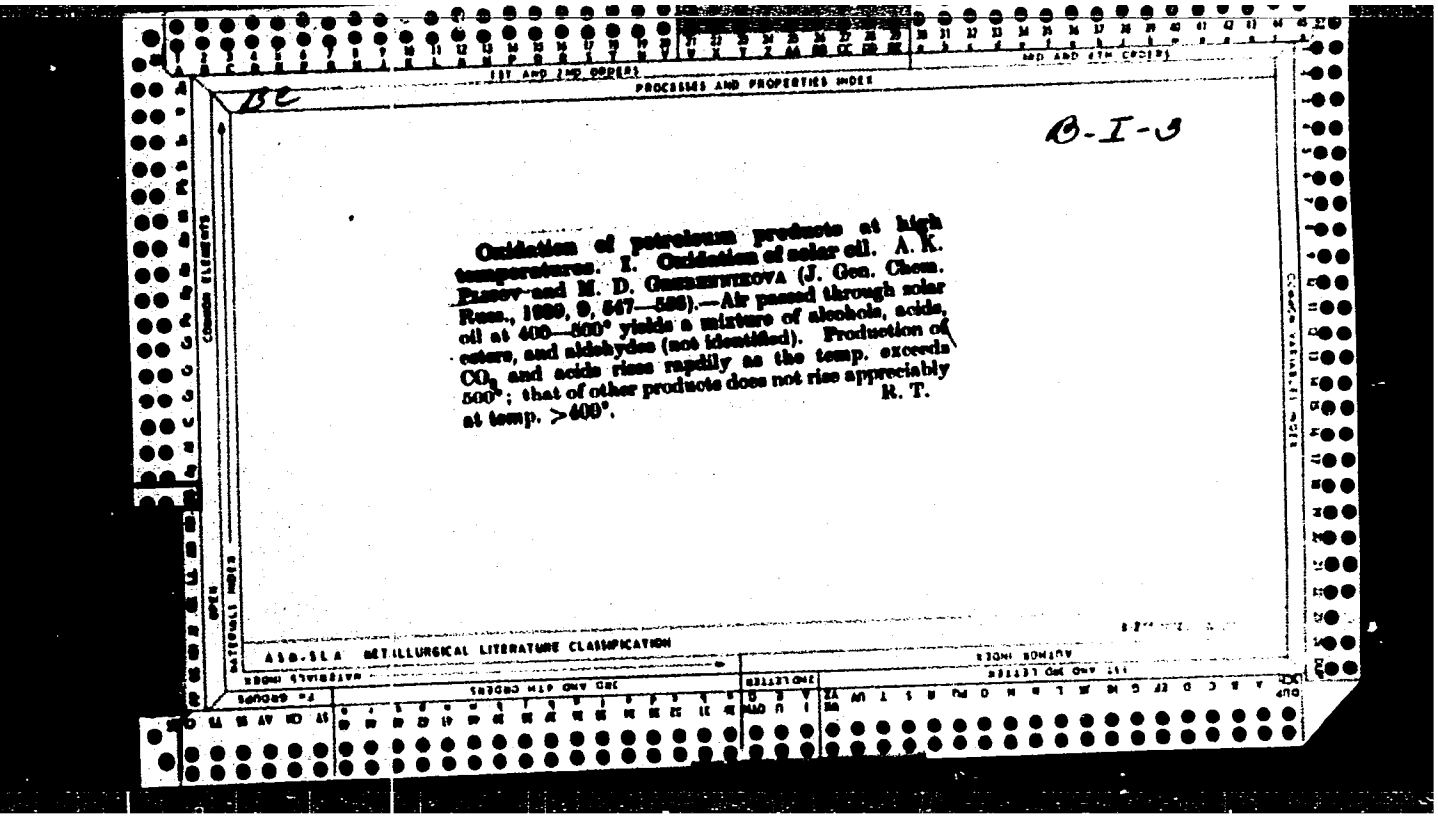
"Oxidation of Petroleum Products at High Temperatures -- I. Oxidation of Solar Oil,"

Zhur. Obshch. Khim., 9, No. 6, 1939.

Laboratory of Organic Chemistry, Chemico-Technological Institute, Krasnodar.

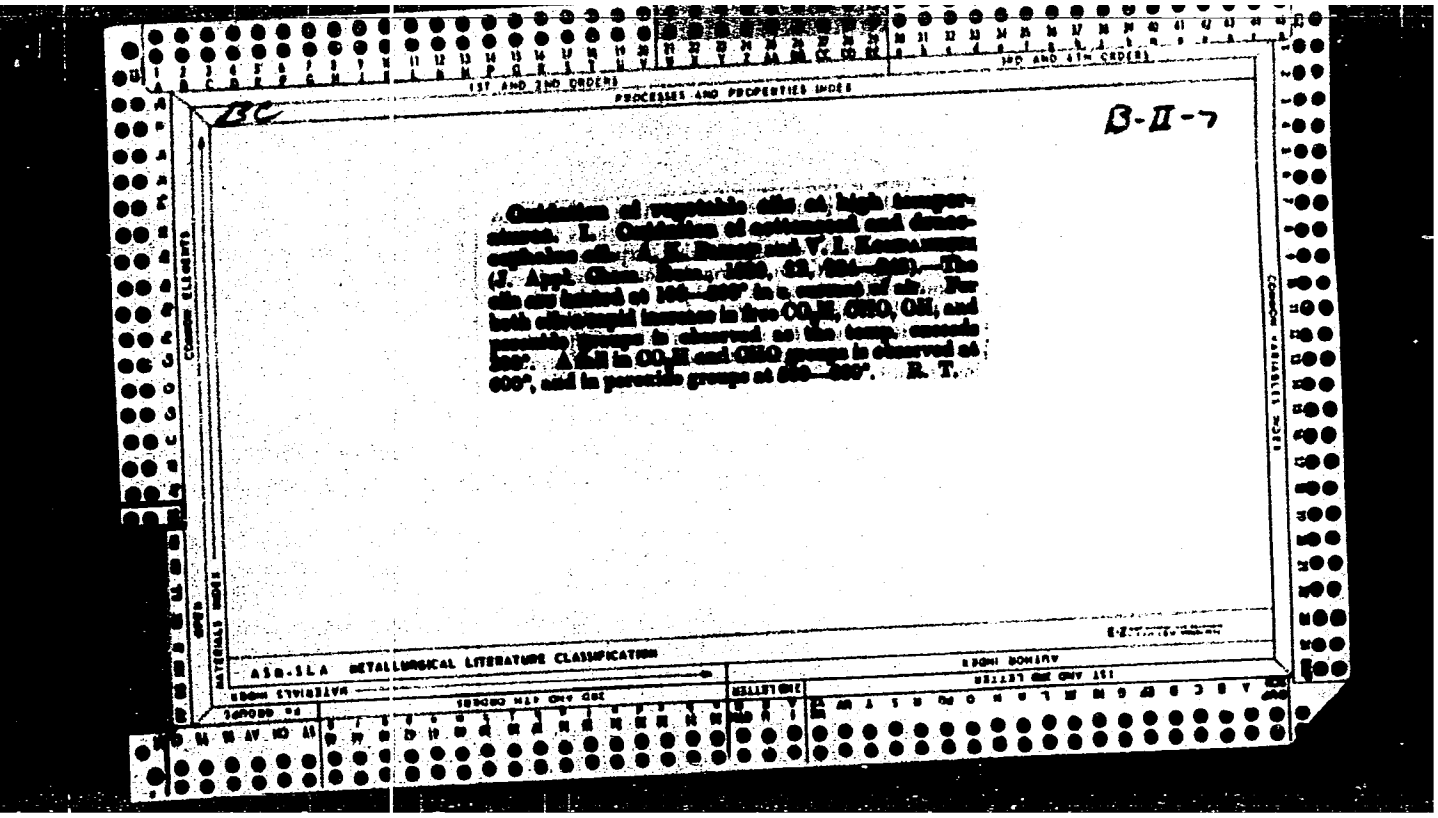
Received 14 July 1938.

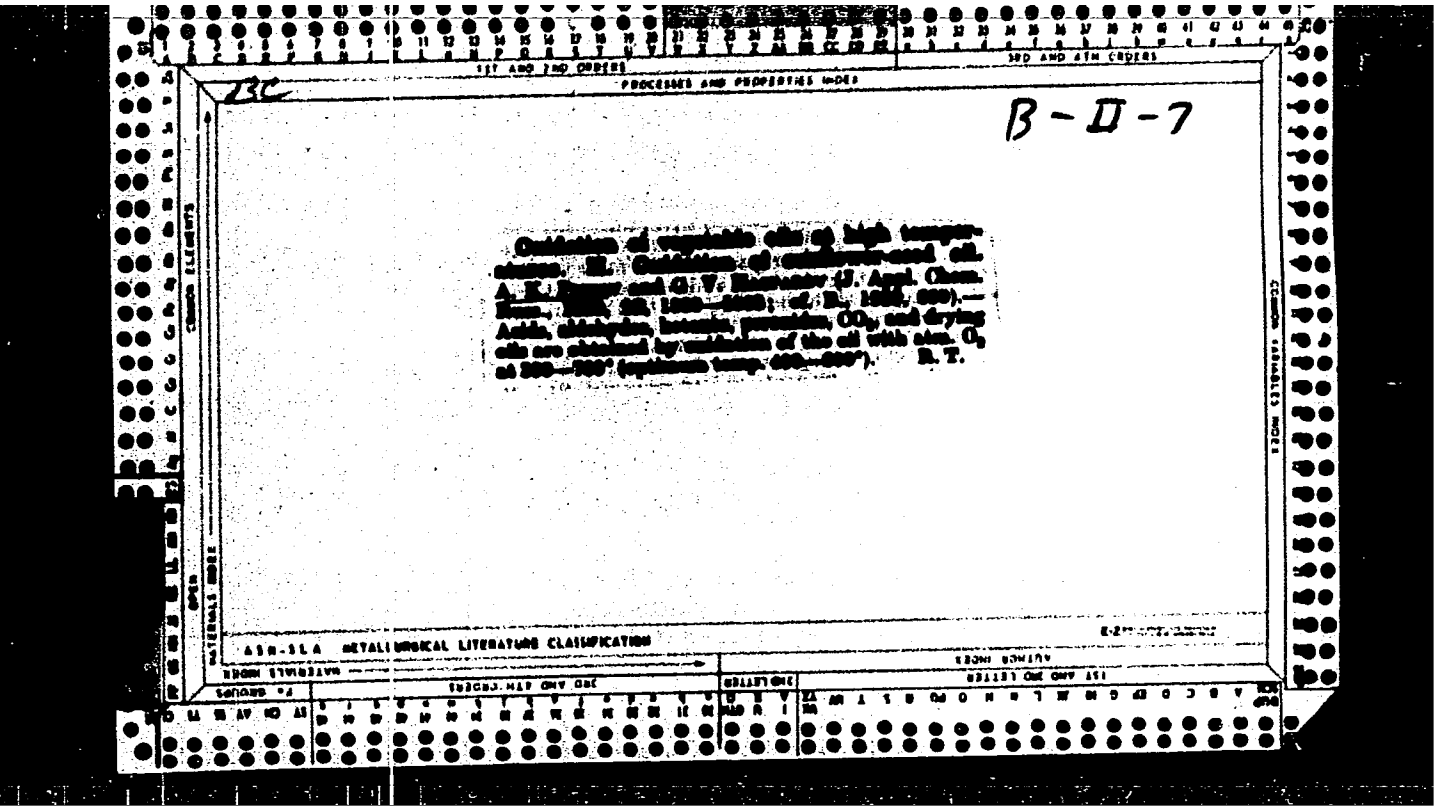
Report U-1517, 22 Oct 1951



B-I-3

Oxidation of petroleum products at high temperatures. I. Oxidation of solar oil. A. K. Pisarev and M. D. Gurevich (J. Gen. Chem. Russ., 1939, 9, 547—558).—Air passed through solar oil at 400—500° yields a mixture of alcohols, acids, esters, and aldehydes (not identified). Production of CO_2 and acids rises rapidly as the temp. exceeds 500°; that of other products does not rise appreciably at temp. >400°. R. T.





PLISOV, A. K.

20554 PLISOV, A. K. O sposobe polucheniya elaidinovoy kisloty. Trudy krashodarsk. in-ta pishch prom-sti, vyp. 4, 1948, s. 51-55.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva - 1949

PLISOV, A.K.

20553 PLISOV, A. K. Okataliticheskom pazlozhenii kislot l'nyanogo masla. Trudy krasnodarsk. In-ta pishch. prom-sti, vyp. 4, 1948, s. 111-13

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

PLISOV, A. K.

20816. Plisov, A. K. Okisleniye rastitel'nykh masel pri vysokikh temperaturakh. Okisleniye masel perilly, konopli i l'na. Trudy Krasnodarsk. in-ta pishch. prom-sti, vyp. 4, 1948, s. 115-22.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

CA

26

Oxidation and dehydration of castor oil. A. K. Plisov and E. G. Tomson (Odessa Canning Technol. Inst.). *Zhur. Prikład. Khim.* (J. Applied Chem.) **23**, 200-2 (1950).—A series of expts. to produce a drying oil on dehydration of castor oil by downward passage of the latter at 1 ml./min. through a vertical Al tube (1-2 cm. × 100 cm.) heated over 50 cm. length by an electric furnace showed that the following optimum conditions should be used when 30-40 g. activated clay filler is used: 400° tube temp. and air feed countercurrent to oil at 300 l./hr. The product under these conditions readily forms a tough, clear colorless film on drying in air, and additns. of 0.16% MnO_2 and 0.48% PbO somewhat accelerate the drying process. G. M. Kosolapoff

CA

22

High-temperature oxidation of paraffin. A. K. Plisov and A. I. Bykovets (Odessa Food Refrig. Ind. Technol. Inst.). *Zhur. Prikkad. Khim.* (J. Applied Chem.) **23**, 1277–9 (1950).—Paraffin, passed into an Al tube in a current of air with contact time of about 1 min. at 200–500°, was oxidized to mixed products in order to explore the reaction in the higher-temp. ranges. Optimum conditions are: temp. interval 300–400°, as higher temp. yields too much CO_2, air flow 150–200 l. hr., and material flow 1 ml./min. A more rapid air flow gives poor conversions. The product corresponds to that obtained by oxidation for many hrs. at lower temp. The product is almost free of hydroxy acids and contains aldehydes (best, 60 mg. AcH (calcd.) per 1 g. converted paraffin) and alcs. (best, 150 mg. MeOH (calcd.) per g.), with acid no. 19–24 under best conditions.

G. M. Kosolapoff

CA

2c

The high-temperature cracking of paraffin. A. K. Plisov and A. I. Bykovets (Odessa Technol. Inst.). *J. Applied Chem. U.S.S.R.* **23**, 1357-9(1950)(Engl. translation).—See *C.A.* **46**, 6390a.

B. R.

PLISOV, A.K.

Chem Abs V48
1-25-54
Organic Chemistry

Structure of oleic acid. A. K. Plisov and E. G. Maleeva (Odessa Inst. Food Ind.). *Zhur. Obshchei Khim.* 23, 72-6 (1953).—Sapon. of Me oleate (b_{15} 213-13.5°, d_{15} 0.8780, in alc. KOH was examd. at 25° the reaction being followed by detn. of electrocond. of the reaction mixt.; under identical conditions Me elaidate, b_{15} 214°, d_{15} 0.8790, was also sapond. with alc. KOH. The results given in terms of relative changes of concd. indicate that Me elaidate saponifies more rapidly than the oleate. Hydrogenation of the esters over Pt-$BaSO_4$ in EtOH showed that the rate of hydrogenation of the elaidate is smaller than that of the oleate by a 1:1.14 factor; the free acids show a similar ratio (1:1.15). Oxidation by aq. $KMnO_4$ followed conductimetrically shows that both elaidic acid and its Me ester oxidize significantly more slowly than the corresponding oleic acid and its Me ester. The results confirm the cis structure of oleic and trans structure of elaidic acids. G. M. Kosolapoff

7-13-54

PLISOV, A. K.

(3) 8

Reactivity of petroselinic and petroselaidic acids and their esters. A. K. Plisov and A. I. Bykovets (Odessa Technol. Inst. Food & Refrig. Ind.). *Zhur. Obshchei Khim.* 23, 613-15(1953); cf. *C.A.* 48, 573c.—Petroselinic acid and its Me, Pr, and $PhCH_2$ esters undergo oxidation with aq. $KMnO_4$ at 20–55° and hydrogenation over Pt-$BaSO_4$ at 23° significantly more rapidly than do petroselaidic acid and its corresponding esters. The rate of hydrolysis of the petroselinic acid esters by alc. KOH, however, is smaller than that of the corresponding petroselaidates. These results indicate that petroselinic acid is a cis isomer, while petroselaidic acid is the trans isomer. The esters were prepd. from the ROH and the desired acid in the presence of H_2SO_4. *Alkyl petroselinates:* *Me*, b_{2-3} 158–60°; *Pr*, b_{1-5} 198–200°; *$PhCH_2$*, b_1 218°, d_{20} 0.9315, n^{20}_D 1.4825. *Petroselaidates:* *Me*, b_{2-3} 164–5°; *Pr*, b_2 200°; *$PhCH_2$*, b_{2-3} 220°, d_0 0.9372, n^{20}_D 1.4842. G. M. Kosolapoff

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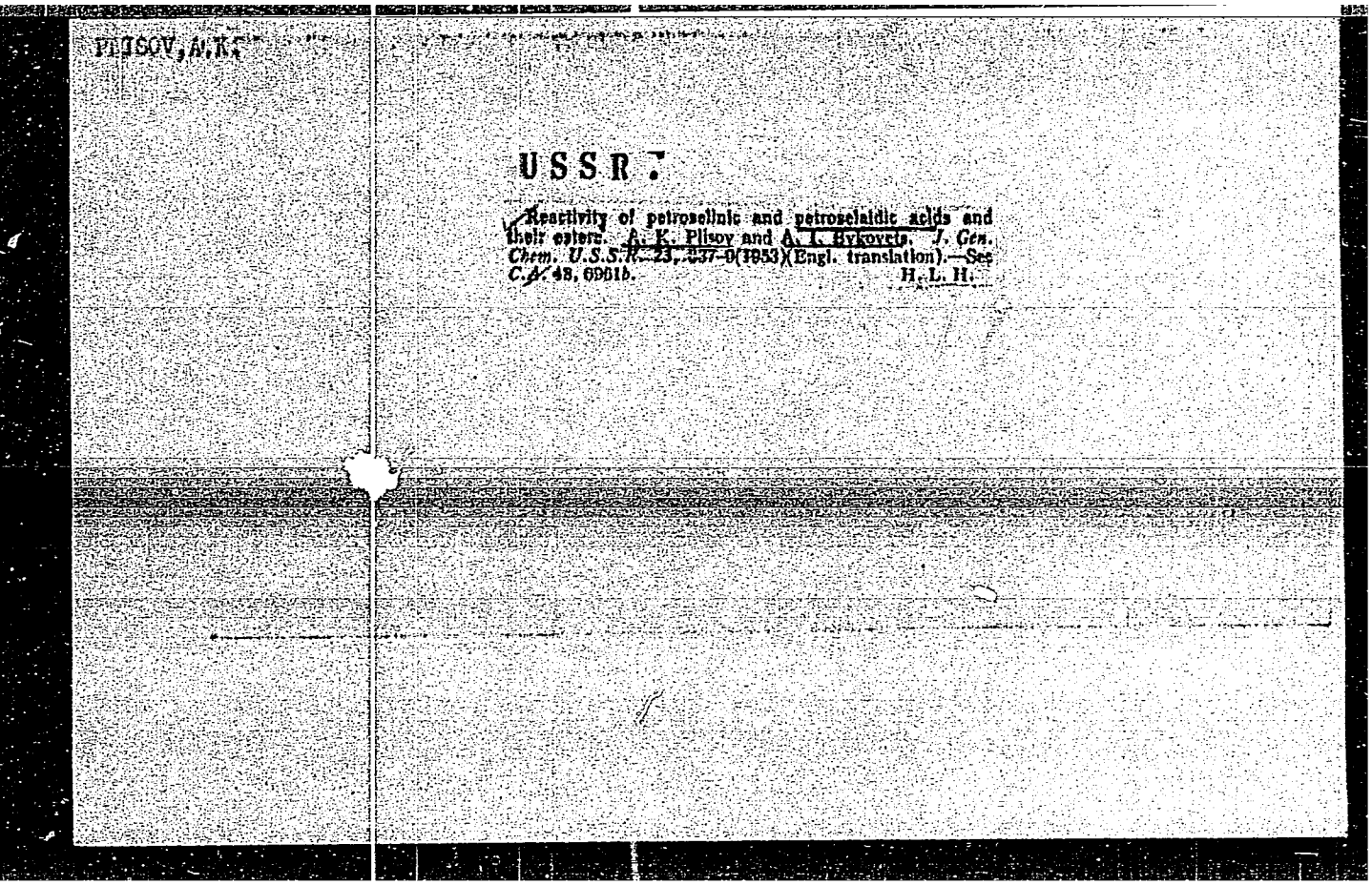

PLISOV, A.K.

USSR

Reactivity of petroselinic and petroselaidic acids and their esters. A. K. Plisov and A. I. Bykovets. *J. Gen. Chem. U.S.S.R.* 23, 237–9(1953)(Engl. translation).—See *C.A.* 48, 6961b. H. L. H.

PLISOV, A. K.

Configuration and properties of unsaturated acids and their derivatives. Oxidation of octadecenoic acids and their esters. A. K. Plisov and N. P. Sviatskii (Odessa State Univ.). Zhur. Obshchei Khim. 23, 1749-52(1953); cf. C.A. 48, 6961b.—Oleic and petroselinic acids are oxidized by $KMnO_4$ in Me_2CO more rapidly than elaidic and petroselaidic acids. The result is in accord with the concept of steric hindrance at the *trans*-double bond. The reactions were followed by titration of the unchanged $KMnO_4$ in mixts. kept at either 10 or 20°. G. M. Kosolapoff

Lab. Organic Chem., Odessa State Univ.

PLISOV, A. K.

USSR/Chemistry

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Authors : Plisov, A. K.; and Bykovets, A. I.

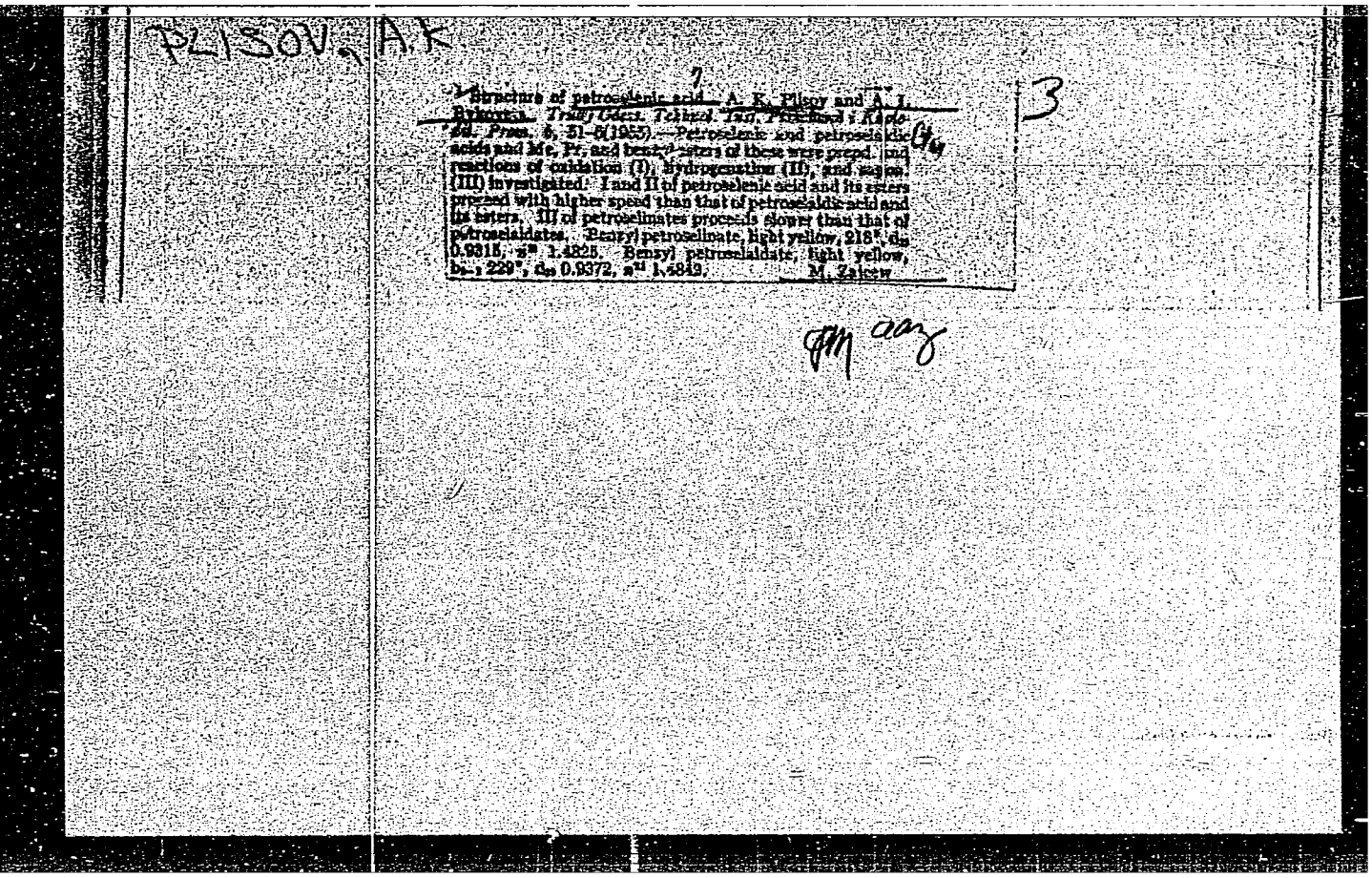
Title : Configuration and properties of unsaturated acids and their derivatives. Part.2.- Properties of cinnamic acids and their esters.

Periodical : Zhur. Ob. Khim. 24, Ed. 5, 852 - 856, May 1954

Abstract : The synthesis of propyl ether of cis-cinnamic acid is described. A difference was established in the relative rate of hydrogenation of cis- and trans-cinnamic acids. Cis-cinnamic acid attracts hydrogen with greater ease. Oxidation of cinnamic acids and their esters takes place at different rates. Cis-cinnamic acid and its ester oxidizes faster than trans-cinnamic acid and its ester; the esters oxidize slower than the corresponding acids. The configuration of the cis-form of cinnamic acids is elucidated. Three references. Graphs.

Institution: The Institute of Food Industry, Odessa, Ukr-SSR

Submitted : November 27, 1953



PLISOV, A.K.

Structure of petroselenic acid. A. K. Plisov and A. I. Rykovtsev. *Trudy Ukr. Tekhnol. Inst. Pishchevoi i Kholodil. Prom.* 6, 31–6(1955).—Petroselenic and petroselaidic acids and Me, Pr, and benzyl esters of these were prepd. and reactions of oxidation (I), hydrogenation (II), and sapon. (III) investigated. I and II of petroselenic acid and its esters proceed with higher speed than that of petroselaidic acid and its esters. III of petroselinates proceeds slower than that of petroselaidates. Benzyl petroselinate, light yellow, 218°, d_4^{20} 0.9315, n_D^{20} 1.4825. Benzyl petroselaidate, light yellow, b_{1-2} 229°, d_4^{20} 0.9372, n_D^{20} 1.4849. M. Zaitew

PLISOV, A.K.; ZHURAVLEVA, I.M.

Configuration and properties of unsaturated acids and their esters. Part 15: Synthesis and properties of α-bromocinnamic acids and their esters. Zhur. ob. khim. 34 no.9:3102-3107 S '64.
(MIRA 17:11)

PLISOV, A.K.; BYKOVETS, A.I.

Configuration and properties of unsaturated acids. Part 3. Reactivity of β- [α-furyl]-acrylic acids and their esters. Zhur.ob. 25 no.6:1194-1199 Je '55. (MLRA 8:12)

1. Odesskiy institut pishchevoy i kholodil'noy promyshlennosti
(Furanacrylic acid)

Plisov, A. K.

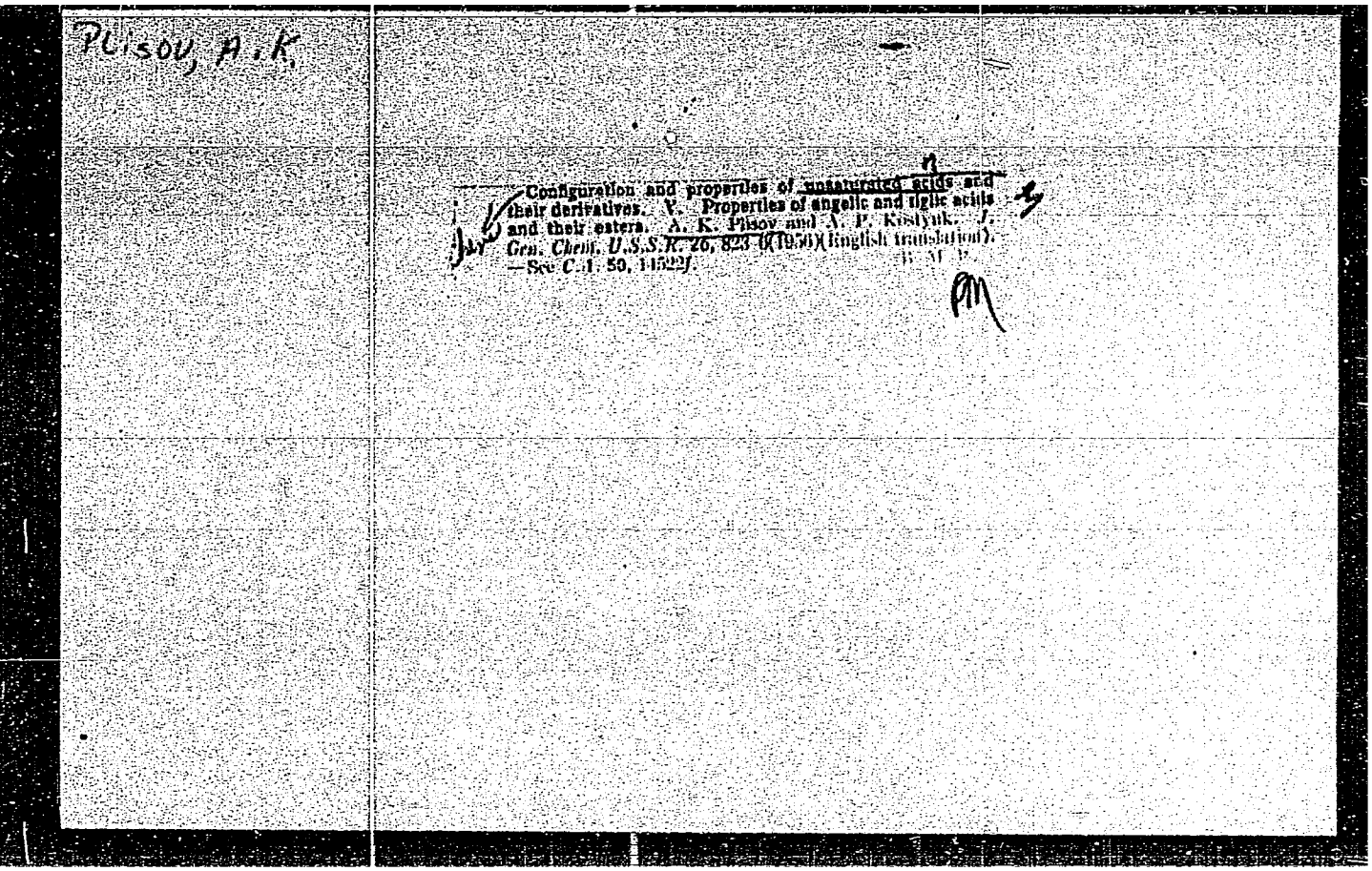
Configuration and properties of unsaturated acids and their derivatives. IV. Oxidation of octadecenoic acids and their esters with benzoyl hydroperoxide. A. K. Plisov and N. S. Skomyakova (Univ., Chicago). *Zhur. Obshchei Khimii* 26, 60-62 [*J. Gen. Chem. U.S.S.R.* 26, 57-60(1956)(Engl. translation); cf. *C.A.* 48, 12874d; 50, 3381c.—Oxidation of octadecenoic acid derivs. was run in Me_2CO with BzO_2H at 10.4° and 20°. The results shown graphically indicate that oleic and petroselinic acids are oxidized more rapidly than elaidic and petroselaidic acids. The Me esters are oxidized less rapidly than the free acids, while 2-naphthyl esters are less rapidly attacked than the Me esters. The decline in reaction rate in passing from acids to esters is more pronounced for elaidic than oleic derivs. Reaction of 2-$C_{10}H_7OH$ with the acyl chloride in presence of pyridine gave *2-naphthyl oleate*, b. 285-9°, and *2-naphthyl elaidate*, m. 34°, b. 285-95°; only the former could be prepd. from the acyl chloride and 2-$C_{10}H_7OK$.

G. M. Kosolapoff

PLISOV, A.K.; KOSTYUK, A.P.

Configuration and properties of unsaturated acids and of their derivatives. Part 5. Properties of angelic and tiglic acids and of their esters. Zhur.ob.khim. 26 no.3:715-719 Mr '56. (MLRA 9:8)

1. Odesskiy gosudarstvennyy universitet.
(Angelic acid) (Tiglic acid)



Pisov, A.K.

Configuration and properties of unsaturated acids and their derivatives. V. Properties of angelic and tiglic acids and their esters. A. K. Pisov and A. P. Kostyuk. *J. Gen. Chem. U.S.S.R.* 26, 823 (1956)(English translation). —See *C.A.* 50, 11522*f*.

AUTHORS: Plisov, A. K., and Bogatskiy, A. V. 79-2-18/58

TITLE: Configuration and Properties of Unsaturated Acids and their Derivatives Part 6. Reactivity of Stereoisomeric Crotonic Acids and Their Esters. (KONFIGURATSIYA i svoystva nepredel'nykh kislot i ikh proizvodnykh. VI. O reaktsionnoy sposobnosti stereoizomernykh krotonovykh kislot i ikh efirov)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 360-364 (U.S.S.R)

ABSTRACT: The authors synthesized butyl, isobutyl, isoamyl and benzyl ethers of isocrotonic acid and benzyl ether of crotonic acid and described their properties. Crotonic acid with a melting point of 72° (trans-isomer) hydrogenates much slower than isocrotonic acid with a melting point of 14° (cis-isomer). The authors established the difference in the relative rates of hydrogenation of crotonic and isocrotonic acids; isocrotonic acid attracts hydrogen very easily. It is explained that the difference in the relative rates of hydrogenation exist also during reactions with different catalysts (pt, pd) in different solutions (alcohol, acetic acid) and at different temperatures. It was found that the increase in alcohol radical in the ester group leads to a reduction in the relative rate of

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Configuration and Properties of Unsaturated Acids and Their Derivatives
Part 6.

hydrogen addition and the difference becomes more noticeable when compared with different crotonic acid esters.

The trans- and cis- structures of the isocrotonic and crotonic acids and their esters were established on the basis of the differences in the relative rate of hydrogenation.

6 tables. There are 17 references, of which 8 are Slavic.

ASSOCIATION: Odessa State University

PRESENTED BY:

SUBMITTED: February 28, 1956

AVAILABLE: Library of Congress

PLISOV, A.K.; STEPANOVA, O.S.

Oxidation of cinnamic acid cetyl esters. Nauch. ezhegod. Khim. fak. Od. un. no.2:99-102 '61. (MIRA 17:8)

PLISOV, A. K.; BOGATSKAYA, Z. D.[Bohats'ka, Z. D.]; SHEYKO, L. D.

Vapor-phase refining of cracked and straight-run gasolines by means of the Odessa gray-green clay. Khim. prom.[Ukr.] no.1: 89-90 Ja-Mr '62. (MIRA 15:10)

1. Odesskiy gosudarstvennyy universitet im. Mechnikova.

(Gasoline) (Clay) (Sulfur compounds)

PLISOV, A.K.; BOGATSKIY, A.V.

Configuration and properties of unsaturated acids and their derivatives. Part 14: Properties of esters of cis- and trans-petroselinic acids. Zhur.ob.khim. 31 no.10:3324-3326 O '61. (MIRA 14:10)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti i Odesskiy gosudarstvennyy universitet imeni I.I.Mechnikova.

(Petroselinic acid)

PLISOV, A.K., BOGATSKIY, A.V.; BYKOVETS, A.I.; BOGATSKAYA, Z.D.

Synthesis of new sulfamide coupounds. Trudy OTIPiKhP 9 no.2:97-100 '59. (MIRA 13:9)

(Sulfamide)

PLISOV, A.K.; ZHILA, L.A.

Configuration and properties of unsaturated acids and their derivatives. Part 10: Thiocyanation of oleic and elaidic acids and their esters. Zhur.ob.khim. 29 no.1:323-328 Ja '59.
(MIRA 12:4)

1. Odesskiy institut pishchevoy i kholodil'noy promyshlennosti.
(Elaidic acid) (Oleic acid) (Thiocyanation)

AUTHORS: Plisov, A. K., Bykovets, A. I. SOV/156-58-3-35/52

TITLE: The Thiocyanation of Oleic and Elaidic Acids and Their Esters (Rodanirovaniye oleinovoy i elaidinovoy kislot i ikh efirov)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp. 540-541 (USSR)

ABSTRACT: Thiocyanate solutions are used for the quantitative analysis of fatty acid mixtures. It was found that the rate of thiocyanation of oleic and elaidic acid is different. The thiocyanate number was determined by means of the titration method, and the deposition in percentage of thiocyanate was calculated. The experimental results showed that the cis-form of the fatty acids is more quickly thiocyanated than the trans form, and that the free acids can be thiocyanated more slowly than the corresponding esters. Quantitatively the thiocyanation reaction of the cis and trans forms of elaidic acid and its esters resembles the hydration reaction of these compounds. There are 1 table and 5 references, 4 of which are Soviet.

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SOV/156-58-3-35/52

The Thiocyanation of Oleic and Elaidic Acids and Their Esters

ASSOCIATION: Kafedra organicheskoy khimii Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti
(Chair of Organic Chemistry at the Odessa Technological Institute of Food and Refrigeration Industry)

SUBMITTED: November 25, 1957

Card 2/2

AUTHORS: Plisov, A. K., Zhila, L. A. SOV/79-29-1-68/74

TITLE: Structure and Properties of the Unsaturated Acids and Their Derivatives (Konfiguratsiya i svoystva nepredel'nykh kislot i ikh proizvodnykh). X. Thiocyanation of Oleic and Elaidic Acids and Their Esters (X. Rodanirovaniye oleinovoy i elaidinovoy kislot i ikh efirov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 323-328 (USSR)

ABSTRACT: Based upon the previous finding (Refs 1,2) that oleic and elaidic acid as well as their methyl esters react with different rapidity with thiocyanogen solutions and that the alcohol radicals exercise a different influence upon the reactivity of the cis and trans derivatives of unsaturated acids, the authors decided to solve this problem by a thiocyanation reaction. Apart from this, chemists are also interested in thiocyanation and thiocyanogen compounds as they are used in vulcanization of rubber, in medicine (Ref 3), in dye and inseticide production. For this purpose the following esters were synthesized: methyl-, ethyl-, butyl-, isobutyl-tert-amyl-, n.-hexyl-, benzyl-, phenyl- and α-naphthyl esters of oleic and elaidic acid. The thiocyanation of these compounds was carried out in reagents at

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Structure and Properties of the Unsaturated Acids and Their Derivatives. X. Thiocyanation of Oleic and Elaidic Acids and Their Esters

various temperatures and in various concentrations. The results given in the experimental part give evidence of the fact that in the case of geometrical isomeric esters of the unsaturated acids the cis form thiocyanates more rapidly than the trans form. Apart from this, the influence exercised by the length of the chains and the dimension of the alcohol radical upon the reaction became particularly clear in the thiocyanation. For the purpose of clarifying the chemism of the thiocyanation reaction, the final products formed by the thiocyanation of the methyl esters of oleic and elaidic acid, i.e. dithiocyanogen methyl oleate and dithiocyanogen methyl elaidate were separated and characterized. There are 4 tables and 9 references, 5 of which are Soviet.

ASSOCIATION: Odesskiy institut pishchevoy i kholodil'noy promyshlennosti (Odessa Institute of the Food and Refrigeration Industry)

SUBMITTED: December 4, 1957

PLISOV, A.K.; BYKOVETS, A.I.

Rhodanation of oleic and elaidic acids and their esters. Nauch. dokl. vys. shkoly; khim. i khim. tekh. no.3:540-541 '58. (MIRA 11:10)

1.Predstavlena kafedroy organicheskoy khimii Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.
(Oleic acid) (Eladic acid)

PLISOV, A.K.; BULATOVA, N.V.

Configuration and properties of unsaturated acids and their derivatives. Part 8: Reactivity of erucic and brassidic acids and their esters. Zhur.ob.khim. 28 no.2:498-502 F '58. (MIRA 11:4)

1.Odesskiy gosudarstvennyy universitet.
(Erucic acid) (Brassidic acid)

PLISOV, A.N.; PALADIYENKO, N.P.

Configurations and properties of unsaturated acids and their derivatives. Part 9: Properties of α-methylcrotonic acids and their esters. Zhur.ob.khim. 28 no.2:503-507 F '58. (MIRA 11:4)

1.Odesskiy gosudarstvennyy universitet.
(Crotonic acid) (Hydration)